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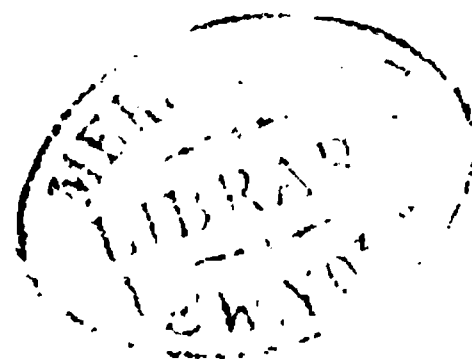
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REPORT AND DOCUMENTS

RELATING TO THE



PUBLIC SCHOOLS OF RHODE ISLAND,

FOR 1848.

BY HENRY BARNARD,

COMMISSIONER OF PUBLIC SCHOOLS.

PUBLISHED BY ORDER OF THE GENERAL ASSEMBLY.

PROVIDENCE.

1849.

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REPORT.

To his Excellency Henry B. Anthony, Governor :—

IN place of the printed Report required of the Commissioner of Public Schools by the act creating his office, and defining his duties, the General Assembly was pleased to receive from the undersigned, each year since 1845, one or more oral communications respecting the condition and improvement of the Public Schools, and the manner in which the duties of the department were performed. It was always his intention, before closing his official connection with the system, to embody in a final report a summary of his several oral communications submitted from year to year to the two Houses of Assembly in joint convention, together with a collection of such documents as threw light on the past and present condition of the Public Schools, and other means of popular education in the several towns of the State. The materials for this Report were in part collected and in type when the Legislature, at the October session, 1848, made provision for the printing and distributing of one thousand copies of the same. The active labors of the office in reference to Teachers' Institutes, Libraries and Appeals, which it seemed desirable and necessary to finish before retiring, prevented his completing the document before his health utterly failed, and compelled him to resign the office in the midst of his unfinished business. In his letter to Governor Harris, tendering his resignation, and in his final communication to the General Assembly at the January session, the intention to complete the publication of the document at the earliest moment of recovered strength and health, was renewed. For months after his resignation the undersigned had not health sufficiently vigorous to renew the work, and it is now presented in a far less condensed and elaborated form than it was his intention originally to prepare.

The Catalogue of the Pawcatuck Library in Westerly, and of the School Library in District No. 1, in Barrington, are included in the documents, not only because they are the best specimens of the Village and School District Libraries, which the undersigned has been enabled, through the liberality of individuals, to establish in different towns in the State, but

because such libraries, practically accessible to all classes in the community, are indispensable to the completeness of any system of popular education. For the same reason a synopsis of the courses of popular lectures which have been delivered in Providence and in more than twenty of the large villages, during the last five years, are appended.

It was the intention of the Commissioner to have given an account of all the institutions for secondary and superior education, and to have submitted some facts for the purpose of showing the disadvantages which the State was now experiencing from the previous neglect of these institutions. A contribution only to this department of the educational history of the State is contained in this volume.

The vote of the General Assembly to provide for the distribution among the several school districts, &c., of a copy of the Journal of the Rhode Island Institute of Instruction, published under the editorial care of the undersigned, induced him to throw his material into the form of an additional volume of that work—thinking in that way, that the Trustees of school districts, and School Committees of the several towns, would possess in a permanent and convenient form a documentary history of the Public Schools of the State. By this act of the Assembly the undersigned was saved the necessity of rewriting his views on several points, which he had already prepared and published in another form. The Index at the close of the accompanying document, will make it convenient to refer to any subject of special interest to the reader, in any one of the three volumes.

In the three volumes thus published, school officers, the districts, and all interested will have access to all the contents of the volume published by the undersigned while acting as Commissioner of Public Schools, under the title of School Architecture, in which the latest information is given respecting the topics of which it treats.

With these explanatory remarks the document is committed to your hands, with the best wishes of the undersigned for the continued prosperity of the Public Schools of Rhode Island, and with the most grateful acknowledgements for the uniform personal kindness with which he has been treated by the people of the State, and for the official co-operation which he has received from the Legislature, from school officers, teachers, and the conductors of the public press, in the discharge of his numerous and arduous labors.

HENRY BARNARD.

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FOR 1848.

EDITED BY HENRY BARNARD,

Commissioner of Public Schools.

VOLUME III.

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CHARLES BURNET, JR.

1848.

PROSPECTUS OF VOLUME III.

The subscriber will publish a *Third Volume of the Rhode-Island Institute of Instruction*, under the editorial charge of Henry Barnard, Commissioner of Public Schools.

The first Number will be issued in January, 1848, and will be published on the 1st and 15th of each month, or on such days as may suit the official engagements of the Editor, until the volume is completed.

The several numbers will not contain an equal quantity of matter, but the volume when completed will embrace at least Four Hundred pages.

The price of the volume will be *one* dollar for a single copy; *five* dollars for six copies, and *ten* dollars for thirteen copies.

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All subscriptions must be paid on the reception of the first number.

CHARLES BURNETT, JR.

PROVIDENCE, January 1, 1848.

JOURNAL

Rhode

Island

INSTITUTE OF INSTRUCTION.

VOL. III.

PROVIDENCE, JANUARY, 1848.

NO. 1.

ANNUAL REPORT OF THE EXECUTIVE COMMITTEE OF THE RHODE-ISLAND INSTITUTE OF INSTRUCTION.

In presenting to the Rhode-Island Institute of Instruction this their third annual report, the Executive Committee do not deem it necessary to furnish a *detailed* account of the measures that have been discussed or carried into effect by them during the past year. The operations of the Committee, since the last annual meeting of the Institute, have, for various reasons, been less extended than they were during the two preceding years. The publication of the Journal, which, during its first year, was conducted mainly by the State Commissioner, in the name and with the assistance of the Institute, has been continued during the past year by the Commissioner, at his own risk.— During the first two years of the Institute, a special agent was employed to co-operate with the State Commissioner in his efforts to awaken interest and disseminate information on the subject of education, throughout the State. It was not thought expedient to undertake the employment of such an agent during the past year, on account of obstacles in the way of collecting funds for that purpose.* The doings of this Committee for the past year, then, have been restricted, with slight exceptions, to the meetings of the Institute which have been held under the direction of the Committee, in various parts of the State. In holding these meetings, it has been the aim of the Committee, as in former years, to second the efforts of the State Commissioner to arouse atten-

*It is due to Mr. Barnard to state, that he has not only continued the publication of the Journal of the Rhode-Island Institute of Instruction at his own risk, and as the event has proved, at no inconsiderable expense, but that he has mainly at his own expense, held three Teachers' Institutes, at which upwards of two hundred teachers were present, besides securing the services, at different times, of experienced teachers and lecturers, in behalf of the public schools of this State.

tion and to enlighten public opinion in reference to that reform in our educational system, to effect which the State Commissioner was appointed, and the Rhode-Island Institute was established. Of the beneficial results of these meetings there can be no doubt. The interest manifested at some of them by the people of the places where they were held, has been intense; and even if it were otherwise, experience would teach us not to despair of a beneficial result: for instances are already known, in which a movement leading to the most liberal and praiseworthy efforts on the part of the people to improve their schools, may be dated back to a comparatively dull and thinly attended meeting of the Institute held among them.

But it does not seem necessary in a report like this, that we should be limited to the doings of the Committee, or, strictly speaking, to those of the Institute itself. The Rhode-Island Institute of Instruction *practically* includes all who are willing to labor or contribute for the advancement of education in this State. This being the case, the Executive Committee, without claiming for themselves or for the Institute in its strict sense, everything that has been done or is to be done in this cause, but gladly acknowledging the superior efficiency of other agencies at work in the same field, deem themselves at liberty to take a general view of the educational movement now in progress amongst us, and to offer such suggestions as may promise to be useful, to any who may be engaged in carrying this movement forward.

What then is our present position, here in Rhode-Island, in reference to this work? What have we done, and what have we yet to do?

In answer to these inquiries, it may be remarked, that we are now in what may be called a transition state. That state of apathy which prevailed a few years ago, in which our people rested contented with the slender and imperfect means of education already in use, as if any improvement in this department of the business of life were either impossible, or of too little consequence to demand attention, has passed or is passing away; and progress in this, as in everything else, is fast becoming the order of the day. We have already learned to believe, that the methods of imparting knowledge and of training the mind, which had remained for ages with so little change, were, after all, as capable of improvement as the primitive methods of spinning cotton; and that, if school-house architecture had undergone less change during the last forty years than steam-boat architecture, it was not because the models of the art generally followed, had come down from antiquity entirely free from imperfection. We

acknowledge the value of education, and the obligation to place it within the reach of the whole people. We are aiming at a more thorough education than was formerly thought of, except as a special privilege to the few. We are striving to bring the pleasures of intellect home to every fireside and to every individual.

In this state of things we have much to rejoice over, and every encouragement to go forward in the work which has been so auspiciously begun. But it is precisely in this state of things, that we have most need of care, lest in our zeal to go forward we fail to go right, and thus discover when it is too late, that our zeal was "not according to knowledge." The Committee would therefore invite attention to some of the ways in which errors may be committed in our efforts to improve our educational system.

One of the most obvious errors to which a community may be exposed, is that of leaving the work of reform which may have been undertaken, when it has been only begun, instead of carrying it forward to its completion. For instance, the people of one district may content themselves with erecting a commodious school-house, those of another with employing a more efficient teacher, those of another with purchasing apparatus, &c.; forgetting that all these things combined, and many others, must receive attention, before their schools can be on a satisfactory footing. If in any case liberal efforts in behalf of schools have been made, and the people have been disappointed in the result, the failure may very likely be traced to some such defective view of the work in hand, as that now intimated. Most likely the brunt of the battle has already been fought; the heaviest expenditure has already been incurred, while some minor arrangements, none the less important because less expensive, require attention, in order to insure success.

But this simple omission of a part of the work undertaken, though it may often be a cause of failure, is by no means the only one that requires attention. There is danger of making changes, perhaps expensive ones, without making any improvement; or, what is worse, making changes with the view of improvement, which shall prove to be positively injurious. Several errors of this sort will now claim our attention.

1. While the increase of teachers' wages is justly a favorite subject of remark, it should be remembered that, if teachers have been paid little, their services have often, perhaps generally, been worth little. To this there have always been honorable exceptions, and their number is happily fast increasing. These exceptions should be respected and paid as they deserve; and in

proportion as this is done, will their number be still further increased. But there is no magic in high pay, that will of itself improve, to any great extent, the condition of a school. If liberal pay can be afforded, the greatest care should be taken to give it to the teacher who is worth it. And the teacher who wishes to obtain a liberal support from the community, must qualify himself to render to the community a corresponding equivalent. The Committee see nothing in the employment of a teacher, which should distinguish it from the corresponding transactions in the other departments of life. The notion that a well qualified teacher should pursue his toilsome vocation with untiring industry at a starving pay from motives of benevolence, is wrong. The people must pay for the education of their children, or they have no right to expect that the work will be done. On the other hand, the notion that a teacher must be liberally paid, simply because he is a teacher, without regard to his qualifications for the high vocation which he has assumed, is equally wrong. Let teachers be encouraged to expect as much pay as their services are worth, and no more.

2. In the erection of school-houses, care should be taken to obtain the best possible accommodations for the money expended. Every one who is acquainted with the subject, knows that a large sum may easily be expended in the erection of a school-house, without obtaining half the conveniences that might have been obtained for a smaller sum; and in case of so large an expenditure as that required for this purpose, it becomes doubly important that the money appropriated by the people, should be expended to the best advantage. Without enlarging to any great extent upon this point, the Committee would specify the danger that may arise from copying too closely what has been done in those places which have gone ahead in this work, and which have therefore been held up, in some sort, as models to others. It should be remembered that some errors may very likely have been committed in those places, and their errors, as well as their improvements, should be turned to account by those who follow them. It should also be remarked, that those arrangements which are best adapted to the circumstances of one school, may be very far from the best for another school. The size and arrangement of desks may be taken to illustrate this remark. It is a great convenience to have large desks, with a plenty of aisle room around and among them. But in very large schools, like the grammar schools in Providence, this convenience cannot be had to its full extent, without inconveniently enlarging the area of the room over which the teacher must extend his supervision.

For such schools we are compelled to adopt a medium between the evil of very small and closely arranged desks, and that of very large rooms. In the farming districts, and in most cases in the villages, there will be no such necessity. These remarks have been suggested by the fact, that men have, on various occasions, called at certain schools, to take the dimensions of desks, &c., without appearing to consider sufficiently, whether they might not do better than to copy the furniture in question.

3. In framing regulations for schools, committees may pass from the extreme of regulating too little, to that of regulating too much. In place of the error of leaving every thing to accident, or to the judgment or caprice of the teacher, they may fall into that of making their regulations so minute and stringent, as to cripple the energies of the teacher, and render him little better than a machine. Regulations prescribing the exact length of recitations, like those formerly in force in Lowell, minute rules respecting the maintenance of order in school, &c., seem liable to this objection. The details of school management should generally be left to the discretion of the teacher, and the teacher should then be held responsible for the result.

4. In rendering the course of study more liberal, we may pass from the extreme of teaching too little, to that of attempting to teach too much. In elevating the standard of education, so that it shall cover the higher branches, we may neglect those which are none the less important because they are lower. We may have teachers in our schools, who will win for themselves applause by teaching the children astronomy, while they overlook the necessity of teaching them to spell. A teacher from one of our villages, where considerable efforts had been made in behalf of the public schools, once remarked, that it was difficult to induce his pupils to attend to spelling, the idea prevailing among them, that that branch belonged to the primary school. He must have been more fortunate than most teachers, if he could not have demonstrated in a few moments that it belonged to the grammar school too, not excepting the highest class.

5. In carrying out our reforms, we expect teachers to throw more interest into the exercises of the school, so as to lead pupils to do with a willing mind, that which they formerly did against their will or not at all. Here again we need to be on our guard, or in the place of teachers who made the school room, in too many cases, a place of mere drudgery or idleness, we may have those who will call into use every expedient to render the whole business of education mere play. Teachers may do and should do much to render the work of education interesting to their pu-

pils; but, if the various expedients which are recommended to win attention and excite interest, are allowed to take the place of genuine study on the part of the pupils, and of thorough, systematic instruction on the part of the teacher, we shall fail, so far as this is done, of procuring for our children that sound education which should ever be the object in view. Expedients to amuse children should take but little time: the work of the school is study and instruction. This rule should never be lost sight of, though its application may vary much in strictness, to suit the age and other circumstances of the pupils.

6. One of the faults generally prevalent in schools, is, that there is too little study in them. If, in our efforts to correct this fault, we escape the one just noticed, we may fall into that of requiring pupils to study too much. Perhaps there is not much danger in this direction; yet there are cases where the caution here offered would be in place. The health of pupils requires relaxation and exercise; and there are things to be learned, by girls particularly, which are not taught in the schools, and which will therefore require time elsewhere. It is therefore an important question, under what circumstances, and to what extent, the practice of requiring pupils to study *out of school* should be encouraged.

7. The subject of school examinations is among the things that will demand attention wherever any considerable efforts are made to improve schools. On this point, the error has been that of making the examination a mere farce, in which the teacher and pupils were to get up the best possible show, at the least possible expense. Such an examination does no harm, it may do some good, where it is offered for just what it is, simply an exhibition or show. But, if an effort is made by the teacher, to pass it off as a fair representation of the progress and standing of his pupils,—and there is reason to fear that such things are sometimes done,—it is seen at once that the affair is one of very objectionable morality. In whichever light the affair may be viewed, something more thorough will probably, in most cases, be thought desirable. An examination will be demanded, at stated intervals, which shall show in a satisfactory manner, how the teacher and his pupils have been employed during the period for which the examination is held. In attempting this, there have been indications of a tendency in some quarters, to pass from the idle show in which the pupils are required to know nothing, except the lessons for the day, on which they have been incessantly drilled for several weeks, to the opposite extreme of rigidity, in which the pupils shall be expected to be so thor-

oughly acquainted with the studies in which they have been instructed, and so skilful in commanding their knowledge of those studies, as to be able to acquit themselves creditably, when questioned in any manner that may suggest itself to the examining committee.

This is a degree of thoroughness which many believe it, in most cases, unreasonable to expect. Supposing this opinion to be correct, an error will be committed whenever the committee insist on taking the management of classes at examinations, either wholly or chiefly into their own hands, instead of leaving it mainly to the teacher. When such a course is pursued by the committee, it probably arises from the supposition, that they can have no assurance of a fair and thorough examination in any other way. This is so only when the teacher, if left to himself, is determined to be unfair or superficial. Any teacher may, if he will, give such an examination of his classes as shall satisfy all present that there is no imposition, and such as will impart a more thorough knowledge of his school, than the committee could possibly gain in the same time, in any other way. It is but fair that the teacher should be permitted to exhibit his own work; and in all cases where he is disposed to pursue a frank and manly course in conducting an examination, the committee should interfere but little. They should be close and critical observers of the exercises; but they should not, to any great extent, assume the duty of conducting them. The committee may with great advantage throw in many incidental questions; and there may be cases in which, for particular purposes, or under peculiar circumstances, they should take the work entirely into their own hands; but the Executive Committee believe that the principles here advanced, will generally be found correct.

In the preceding remarks, the Committee have endeavored to guard against some of the errors which we are liable to commit, in our efforts to improve our public schools. But it is to be hoped that no one will be deterred from acting at all, because there is liability to act wrong. There is the same liability to error in every enterprise that is undertaken, whether for public or for private ends. No great benefit is often obtained without well-directed as well as energetic effort; and few enterprises promise so rich a reward to such effort, as that in which we, as the friends of popular education, are enlisted. It may reasonably be expected that our labors will result in bringing out many noble minds, to be an ornament and a benefit to mankind, that would else have remained in obscurity. But this is not the high object which we have specially in view. Our purpose is not to

lead a few favored individuals to extraordinary attainments in learning, but rather to give to the whole people a good practical education ; such an education as the whole people may find time to acquire, and such as the whole people may find use for in the business and enjoyments of life. The Executive Committee believe this to be an object, that will amply compensate for all the time and money that will be expended upon it ; and they would therefore urge upon all to exert themselves, according to the position which they occupy, for its attainment.

Again, this object can never be attained without effort. The affairs of education will not take care of themselves. They will neither be managed efficiently nor economically, if they are not looked after by the people. There is probably no other department in the affairs of life, where the evils of mismanagement are so enormous as in the schools. The money expended for worthless or injurious teaching, the untold amount of pupils' time wasted in idleness or mischief, the hatred of books induced by an injudicious course of study and unskilful instruction, the waste of comfort arising from unsightly and ill-contrived school-rooms, and the waste of human life consequent upon depriving multitudes of children of a sufficient supply of pure air, present an aggregate of evil against which the whole community might well cry out with indignation and alarm. The Committee will not undertake to say where these evils exist, but they will say that they are liable to exist, to the full extent here described, in any community where the schools are neglected ; and for this reason they would call upon every man, especially upon every man of influence in his town or neighborhood, to bestow upon the schools a liberal share of attention.

A caution has been offered against paying high wages to poor teachers. Let this error be avoided, not by hiring unskilful teachers for low pay, but by hiring such teachers as are qualified for their work, for such pay as will command their services. There is little danger of over-estimating the difference between a skilful and an unskilful teacher. The one may keep his pupils constantly employed, the other may keep them as constantly idle ; the one may keep the minds of a class constantly awake, the other may allow them as constantly to sleep ; the one may spend all the time in teaching what is useful, the other may waste the greater part of it in teaching what is useless ; the one may lead his pupils to love study, the other may lead them to hate it ; the one may do a great deal to make his pupils better, the other may do as much to make them worse. If this be true, it can never be good economy to hire a poor teacher, because he can be obtained at a low price.

Something has been said to guard against the misapplication of funds raised for the erection of school-houses. Yet funds must be raised for this purpose. Let any one witness the contrast between an airy, commodious, well-finished, and well-furnished school-room, and one of the better class even of the school-rooms which have commonly been met with, to say nothing of the wretched hovels in which many schools are kept; and let him remember that the school-room is, in an important sense, the home of our children, the scene of a large share of their joys and sorrows, and he will need no other argument to prove, that money must be expended to render the school-house, as well as the dwelling-house, both convenient and attractive. It must be done, because the comfort, as well as the improvement, of our children, is dependent, in an eminent degree, upon it.

Errors have been pointed out, as liable to occur in the discharge of various duties devolving upon school-committees; as in framing regulations for schools, in arranging the course of studies, and in attending examinations. Yet these duties must be performed. Men must be found in every town, and if possible in every district, who will accept the office of school-committee, and devote the necessary time to the performance of its duties. Such men are required to establish the schools in the first instance; and they are required to see to their interests afterwards. The best teachers will do better when they are looked after; and without an efficient school-committee, teachers of an inferior grade will find their way into the schools; in which case the need of careful supervision will be still more imperative.

But it is not supervision strictly that a school, when once well established, most requires of its committee. It is simply attention; and this it requires, not of the school-committee only, but of the whole community. The school must be spoken of as one of the things worthy of attention. Parents must visit the school, and when they have made it worthy of notice, they should invite their friends to see it when they visit them. They should converse with their children in such a way as to increase their respect for their teachers, and their interest in their studies. They should encourage the teacher, not by speaking condolingly of his trials,—for few teachers are fond of that kind of sympathy,—but by showing that they appreciate his services.

The effect of this kind of attention bestowed upon a school, is in the highest degree salutary. The teacher no longer feels that he is shut out from the rest of the world, to toil in an irksome business, which many despise and nobody cares for; but that he

is engaged in carrying forward an important work, in which the whole community take a deep interest; and he labors with redoubled cheerfulness and diligence, thereby giving assurance that the just expectations of the community will be realized. Nor is the effect upon the pupils less important. If parents treat the work of the school as unworthy of attention, their children are very likely to fall into the same error. On the other hand, if parents interest themselves in the school, and encourage their children in their studies, the children will apply themselves to their school duties with a corresponding alacrity and success.

In conclusion the Committee remark, that while much caution is to be exercised in carrying forward this work of reform, in accordance with the suggestions made in the course of this report, yet the work must go on. We are making improvements in every thing else, and we must make improvements in our schools. Money must be raised sufficient to pay their necessary expenses; school officers must be found to manage their affairs; and the community, at large, must throw around them their fostering care.

Respectfully submitted in behalf of the Executive Committee.

C. FARNUM.

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Proceedings of the Third Annual Meeting of 13

PROCEEDINGS OF THE THIRD ANNUAL MEETING OF THE RHODE-ISLAND
INSTITUTE OF INSTRUCTION.

The third annual meeting of the RHODE ISLAND INSTITUTE OF INSTRUCTION took place in the State House on Friday evening, Jan. 21st. Mr. N. Bishop, Corresponding Secretary, called the meeting to order and stated its object. Mr. Tourtellot, one of the Vice Presidents, arriving, took the chair. Messrs. Gammell, Barnard and Austin were appointed a committee to nominate officers for the ensuing year. The Treasurer presented his report, and Mr. C. T. Keith was appointed a committee to audit accounts.

The records of the last annual meeting were read. Mr. Farnum presented the report of the Executive Committee, which was read and received; and it was voted that it be printed under the direction of the Executive Committee. Prof. Gammell remarked that people are ready enough to acknowledge the importance of good education, but they are not so ready to give their attention and efforts to promote it. While they attend to their common business operations, they neglect their schools, and other means of improvement. We should aim to awaken a livelier interest.

The Rev. Mr. Vail of Westerly, not being able to attend, communicated a cheering account of the cause of education in his quarter. One thousand dollars have been recently raised for the establishment of a library.

Mr. Urdike illustrated the progress of education in this State. He could speak from an extensive observation. He knew the "*District School as it was*" in Rhode Island. He had known some of its teachers, men who were employed without the slightest regard to their qualifications as educators. He had known those employed in the sacred office of teacher for the very reason that they were unfit for any thing else. They were too stupid, shiftless, and feeble in body and mind to earn their bread in the ordinary way, and hence, were employed to teach school. He had known a man, an instructor of youth, whose word upon oath was not respected in one of our civil courts. Such teachers, he rejoiced to say, could not now be found in our schools. A different policy prevails. Teaching is now regarded as a profession, second to none in importance. Those who enter it have to undergo a rigid examination. They must have a good knowledge of the branches in which they are to instruct. They must possess a good moral character. They must adopt improved modes of instruction and discipline. They must devote their time and efforts to their schools. The people of Rhode Island no longer seek the cheapest, but the best men, to train and instruct their children.

Mr. Sisson, of North Providence, gave a statement of facts, which showed conclusively the progress of education in his vicinity. A few years since, and only one school-house was owned in Pawtucket, and that was a general office for the transaction of town business and for various meetings. The schools were kept in dirty, inconvenient, ill-arranged and badly situated rooms. Some of them were molested with the vexatious clatter of machinery, and some were regaled with the music of an Irish wake. The only virtue of these rooms was their cheapness.

The miserable, niggardly policy prevailed which makes men bow implicitly to the "almighty dollar," and slight the laws of the Almighty Maker. A change has taken place. Pawtucket now has school-houses and schools which need no encomium from him. The people are justly proud of them, and could not be induced to retrace their steps. A slight exception exists. Mr. S. concluded with the sentiment that a good school is worth what it costs. Poor articles are cheap; good ones bring and cost money. Education must be paid for, or it is nothing worth.

The Commissioner of Public Schools stated some interesting facts connected with public libraries. The first district library, established since his official connection with the State, was at Portsmouth. More than \$50 has been realized by this library by letting the books out at one cent apiece. Some progress has been made in seventeen other places for the establishment of these libraries. More than four thousand books have already been purchased and are in circulation, and provision has been made for the purchase of five thousand more. These books are read and are exerting an untold influence on the character of the rising generation. Great credit is due those gentlemen who have exerted themselves to diffuse the blessings of good books through the community.

Mr. Bishop, Superintendent of Public Schools in Providence, briefly stated the change which has been wrought in the character and condition of the schools within eight years. The number of school-houses, belonging to the city, has increased from five to twenty-four, and the number of scholars in attendance from seventeen hundred to six thousand, and the number of teachers from twenty-seven to eighty-five.

Adjourned to Tuesday evening, 25th inst., in Westminster Hall, at 7 o'clock.

The Institute met by adjournment at Westminster Hall, on Tuesday evening, Jan. 25th. Hon. E. R. POTTER, Vice President, for Washington county, presiding.

The report of the nominating committee, appointed at the former meeting, was presented, and the following gentlemen appointed officers for the ensuing year :—

JOHN KINGSBURY, *President.*

Hon. E. R. POTTER, *Vice President*, for Washington County.

Hon. A. BALLOU, " Providence "

Rev. A. H. DUMONT, " Newport "

J. W. COOK, " Bristol "

J. S. KELTON, Esq., " Kent "

AMOS PERRY, *Corresponding Secretary.*

C. T. KEITH, *Recording Secretary.*

T. C. HARTSHORN, *Treasurer.*

Nathan Bishop, William Gammell, Christopher G. Perry, Jesse S. Tourtellot, Caleb Farnum, Rev. T. Shepard, Rev. T. H. Vail, Sylvester Patterson, S. Austin, James Bushee, G. C. Wilson, Thomas R. Hazard, William S. Baker, *Directors.*

MR. BARNARD, Commissioner of Public Schools, remarked that "he should confine what he had to say on this occasion, to a plain statement of facts as to the present condition of public schools, and to the efforts which have been put forth to improve them within the past four years. He would in the outset, acknowledge his obligations for the valuable co-operation he had received from the Institute, and particularly to the gentleman who has presided over it since its first organization in this Hall three years ago, and whom nothing but sickness could detain from this meeting. To the uniform, personal kindness of *Mr. Kingsbury*, to his sound, practical judgment in all matters relating to schools and education, to his prompt business habits, to his large public spirit, to his punctual attendance, and valuable addresses in every meeting of the Institute which has been held out of this city, and to the pecuniary aid which his high character and influence in this community has enabled him to extend to the various plans which have been adopted by this department, Mr. Barnard desired to bear this public testimony, and to make his grateful acknowledgements, both personal and official.

Much has been attempted, and something it is hoped has been done, to prepare the way for a broad, thorough and liberal system of public instruction, by interesting all who could be reached by the living voice or the printed page, in the nature and means of education, the condition and wants of the schools, and the best modes of introducing desirable improvements. To this end public meetings have been held, not only in every town, but in every village and neighborhood, more numerous and more systematic in their plan of operations than was ever attempted in any other community, or than could have been carried out in the same time in any state of greater territory, and with a population less concentrated in villages than this. More than eleven hundred meetings have been held expressly to discuss topics connected with the public schools, at which more than fifteen hundred addresses have been delivered. One hundred and fifty of these meetings have continued through the day and evening; upwards of one hundred, through two evenings and a day; fifty, through two days and three evenings; and twelve, including the Teachers' Institutes, through an entire week. In addition to this class of meetings and addresses, upwards of two hundred meetings of teachers and parents have been held for lectures and discussions on improved methods of teaching the studies ordinarily pursued in public schools, and for exhibitions or public examinations of schools, or of a class of pupils in certain studies, such as arithmetic, reading, &c. These meetings have proved highly useful. Besides these various meetings, experienced teachers have been employed to visit particular towns and sections of the State, and converse freely with parents by the way-side and the fire-side, on the condition and improvement of the district school. By these various agencies it is believed that a public meeting has been held within three miles of every home in Rhode-Island, except in sections of a few towns where an audience of a dozen people could not be collected in a circuit of three or four miles.

To the interest awakened by these addresses and by the sympathy of numbers swayed by the same voice, and by the same ideas, must be added

the more permanent and thoughtful interest cultivated by the reading of books, pamphlets and tracts on the same topics at home. More than sixteen thousand pamphlets and tracts, each containing at least sixteen pages of educational matter, have been distributed gratuitously through the State; and in one year, not an Almanac was sold in Rhode-Island without at least sixteen pages of educational reading attached. This statement does not include the official school documents published by the State, nor the Journal of the Institute, nor upwards of twelve hundred bound volumes on schools and school systems, and the theory and practice of teaching, which have been purchased by teachers, or which have been added to public or private libraries within the last four years. In addition to the printed information thus disseminated, the columns of the different newspapers published in the State have always been open to original and selected articles on education, and to notices of the proceedings of school meetings. Not a single article has ever appeared in the public press of Rhode-Island, calculated to impede the progress of school improvement, to injure the feelings of those who are laboring in this field, or to mingle up the question of public schools and general education with the topics of angry political, sectarian and personal controversy, by which every community is liable to be excited and embittered.

With this preparation for practical legislation, and for popular action in the several towns and districts, let us see what has been actually accomplished.

1. An inefficient school system—confessedly inefficient both in its organization and administration—a system which required at every session of the General Assembly, special legislation to secure the building and repairs of school-houses, and the adjustment of local disputes—which contained no check on the employment of unqualified teachers, and provided for none of that supervision which every business corporation, with the smallest capital, extended over its affairs, and which, in more than one half of the towns of the State, was only a cumbersome machinery to expend, almost uselessly, twenty-five thousand dollars of public money annually,—has been abolished; and a system has been established, having within itself capacities of adaptation to large and small districts, and to towns of widely different circumstances, as to the number, occupation and wealth of their inhabitants, and which provides within itself, for the establishment, support and supervision of schools of different grades, and for the cheap and speedy adjustment of all difficulties which may arise in its administration. Wherever this system has been carried out, it has more than realized the promises of its best friends. If any reliance can be placed on the opinion of those persons in the State who have had most to do with its administration, or of persons out of the State who have devoted much time and thought to systems of public instruction, this system will, if undisturbed by hasty legislation, and if sustained and aided by the same agencies which are now at work among us, make the public schools of Rhode-Island equal to the best, in the most favored sections of any other state.

But this change in the school system and habits of the State was not attempted, or accomplished without special preparation. After the

condition of the public schools, and the working of the old school law was ascertained by personal observation, and by communications from school officers in every town in the State, a bill was framed by request of the General Assembly in the winter of 1844, in which all that worked well in the existing law was retained, and only such modifications and additions as experience pointed out were introduced. This bill was reported in May, and referred to a committee of the House, before whom it was explained section by section and paragraph by paragraph. After some modifications the bill was reported to the House, and printed; and its discussion postponed till June. In June, its consideration was taken up, its several provisions explained by the author of the bill before the two Houses in convention, all questions answered—and after debate, it received the almost unanimous sanction of the House. In the Senate, its consideration was postponed until the people could have an opportunity to examine and pronounce upon it,—measures having been taken to print the bill as passed by the House, with the remarks made by the School Commissioner in explanation of its provisions, and circulated amongst school officers of the several towns. With a new legislature, this bill was taken up in the Senate in June, 1845, a familiar exposition of its provisions made by him (Mr. Barnard,) before that body, the difficulties suggested by school committees were explained, a few modifications introduced, and then passed by a large majority. The House adopted the action of the Senate, postponing the operation of the law until the October session following, that there might still be opportunity for the people to examine the Act, and for the legislature to modify its provisions. The law went into operation on the first of November, 1845. No effort was spared by this department, through circulars, public addresses, and conversations with school officers to make the transition from the old to the new system, as easy as possible, and to introduce a uniform and efficient administration throughout the State. To this end, a convention of County Inspectors, Town Committees, and District Trustees, including the most experienced school officers and teachers of Rhode-Island, after nine months practical acquaintance with the new system, was held in Providence, at which every difficulty of construction was presented and discussed, forms of proceedings from the first organization of a school district to the laying and collecting of a tax, specimens of school registers, district and town school returns, regulations to be adopted by school committees as to attendance, classification of scholars, gradation of schools, books, examination of teachers and supervision of schools, were brought forward and considered. The results of this convention, and of further reflection on the same subject were embodied in a pamphlet edition of the school laws; and distributed to every school officer. It is difficult to see how a new system could be framed with more careful reference to the wants of the schools, and to the standard of preparation to which the public mind had been or could be carried.

2. Something has been done under the new law to furnish the public schools with spacious, attractive, and convenient school-houses. Four years ago, there was not a public school-house in the State, out of Providence, which could be pointed to as a model in the essential features of

such a structure. In one half of the towns, the public schools were taught in buildings owned by proprietors, many of which, were erected, originally, for other purposes, and all of them were unfit for children at school—they were badly located, small, inconvenient, and dilapidated. The attention of parents and school officers was early, earnestly, and perseveringly called to the almost necessary connection between a good school-house and a good school, and to the immense injury done to the comfort and health of children by the too common neglect of ventilation, temperature, and furniture of school-rooms. The subject was introduced into every public address, as a preliminary step in the work of educational improvement. Six thousand pamphlets, containing a variety of plans of school-houses for large and small districts, and for schools of different grades, were scattered over the State. Plans and details of construction were gratuitously furnished to builders and committees. Efforts were made to get up at least one model house in each county in which the true principles of school architecture should be carried out, and could be seen. Men of wealth and intelligence in the large districts were seen and interested in the erection of new and commodious structures—which should be ornamental to the village, and attractive and comfortable to the children. School committees were instructed to withhold the public money from districts whose houses should be considered by them as not *school-worthy*.

The results have more than justified the practicality of these and other efforts—a complete renovation, nay a revolution having passed over the school-houses of Rhode Island. Old, dilapidated, repulsive, inconvenient houses having given place to new, neat, attractive and commodious structures in a majority of the districts. Liberal appropriations have been freely voted; and men of business and taste, have accepted the supervision of its expenditure. Rhode Island can now boast of more good school-houses and fewer poor ones, in proportion to the whole number, than any other State—more than one hundred and twenty thousand dollars having been voluntarily voted for this purpose in less than three years, not including the city of Providence. The few poor houses which remain, if they can resist much longer the attacks of the elements, can not stand up against the accumulating weight of public condemnation.

3. Something has been accomplished in augmenting the amount of school attendance, and especially among young children of both sexes, and girls of over twelve years of age. More children attend school—commencing earlier in life, and continuing later, and for a longer period in each year. The statistics on this point for the State cannot be given accurately—but it can be stated generally, that whenever a good school-house has been built, a good teacher employed, and public and parental interest has been awakened by addresses and other ways, the attendance has been increased, at least, fifty per cent., and the term prolonged, at least two months in the year. Many most encouraging facts could be stated under this head. Still a great work has to be done—*the* great work, next to imparting a professional training to the young men and women who are to teach the schools—to bring a larger number of the children of the State, regularly and punctually, for at least eight months in the year, under improved methods of moral and intellectual culture.

4. Something has been done to make the school attendance of children more profitable, by establishing a gradation of schools in the large districts. Upwards of one hundred primary schools under female teachers have been opened for the first time, in village districts, for the young children, and in several instances, a High school, in addition to primary and intermediate, has been established.

5. The course of instruction generally in the State, is more thorough, practical and complete. The elementary studies are more attended to,—music, linear drawing, composition and mathematics as applied to practical life, have been introduced into many schools; and all of the studies, in a majority of the schools, are taught after better methods, in better books, and in many schools, with the advantage of the black-board, globes, outline maps, and other means of illustration. There is not a new school-house, and hardly a school-house of any kind in the State, which is not supplied with a black-board. One third of the districts, or the teachers have a terrestrial globe, and a set of outline maps. The importance of furnishing teachers with every kind of apparatus by which the eye and the hand of the pupil can be enlisted in the work of his own education, is beginning to be felt; and once felt, their introduction in the schools will follow as promptly, as the school-houses have been improved.

6. Something has been done to secure a uniformity of text books in all the schools of the same town. In 1844 there were but three towns in which there were any regulations on the subject; in 1845, it was ascertained that there were fifty-three different kinds of works in spelling and Reading, nineteen in Arithmetic, seven in Geography, ten in Grammar, six in History, &c. In twenty-two towns, the committee have adopted a uniform set of text books, and in eighteen of these, measures have been adopted in co-operation with this department, by which these books have been introduced at reduced prices. It is believed that a saving has in this way been effected to parents, within two years, equal to the whole amount expended by the State on the office of School Commissioner.

7. Something has been done to secure the more extensive and permanent employment of well qualified teachers, and to put in operation, agencies by which the methods of instruction and discipline in all of the schools have been, and will continue to be improved. The provision of the law requiring teachers to be examined, has led to the rejection, in one year, of one hundred and twenty-five applicants—applicants, who would quietly have been employed by the districts, and who would have taught in the same old mechanical way as before, but for this provision. The itinerating agency of Mr. W. S. Baker,—his familiar practical lectures; his conversations with teachers, parents and pupils; his exhibition of improved methods by classes of pupils at public meetings; and the methods adopted in his own school-room, have done an untold amount of good in leading teachers to their own improvement, and inducing parents and trustees to employ only well qualified teachers. The Teachers' Institutes which have been held in the Autumn of each year, for three years past, have helped to train the public to the appreciation of good teachers, and at the same time, to elevate the standard, and quicken the spirit of improvement among teachers themselves. The same thing has been

done by the meeting of all the teachers of the same and the adjoining towns, for the consideration of topics connected with the classification, instruction and discipline of schools. Arrangements have been made to hold upwards of fifty meetings of this kind in the course of this winter. The reading of good books on the theory and practice of teaching, which have been brought within the reach of every instructor, and the habit of visiting each other's schools, and especially such schools as have an established reputation, have helped to improve a large number of teachers. Whenever applied to, he (Mr. Barnard) had assisted districts that were disposed to pay adequate wages, in procuring good teachers; and good teachers, in obtaining desirable situations. No better service can be rendered the cause of school improvement in any town, than by introducing into it, a good teacher of high moral, and literary qualifications. The employment of a large number of female teachers, not only in the primary, but in the district school in the winter, as well as in the summer, has improved the discipline, the moral influence, and the manners of our public schools. Without having any angry discussions as to the merits of different kinds of school discipline, a great and happy change has taken place both in the practice of teachers, and in public sentiment. There is more disposition to sustain the teacher in the exercise of parental authority in his school, and less occasion on his part to appeal to harsh and severe punishments.

8. The public schools of a majority of the towns have been brought for the first time under a general system of regulations, and have been subjected to an intelligent, energetic, and vigilant supervision. Men of prompt business habits, large views of education, and a generous public spirit, have consented to act on the school committee. Committees have studied the improvements of the day, and labored to introduce them into the schools. They have sympathized with the teachers in their trials, and while they have been charitable and indulgent towards them, they have known what to expect and require at their hands. They have appreciated, encouraged, and properly compensated good teachers, and have stimulated or displaced the sluggish, incompetent, or immoral. They have visited the schools from time to time, not only according to law, but as men who felt an interest in the progress, and were aware of the spirit which such visits infuse into teachers and pupils. They have, at the close of the year, given a faithful account of their own doings, of the condition of the schools, meteing out just praise where it was deserved, to teachers, and to districts, and dealing severely, but justly with poor schools, dilapidated school-houses, incompetent teachers, and refractory and neglectful districts.

9. The annual appropriation for the support of public schools, exclusive of large sums voted for the repairs and building of school-houses, has been increased in two-thirds of the towns, since 1844; and in 1847; the aggregate amount raised by tax in the State for the compensation of teachers alone, was nearly double the amount paid out of the General Treasury for the same purpose. In 1846, for the first time in two hundred years, every town in Rhode Island voted and collected a school tax—and it cannot yet be ascertained that any town has been made poor-

er by its appropriation, while it is certain that in every town where the appropriation has been wisely expended, (as it might have been in every town,) better teachers have been employed, and the length of the school term has been prolonged—thus converting a portion of the material wealth of the town, into intelligence and virtue, which will hereafter diffuse happiness, create wealth, and preserve it from waste. In 1847, three towns which had for the first time in 1846, wheeled into the ranks of the advancing column of progress, fell away, and it is already certain in these towns, that while the children of the rich and the educated are provided for in private schools, at an expense exceeding thrice the amount of the whole school tax of the year preceding, the children of the poor are thrown back at least one year in their opportunities of education; and the aggregate intelligence of the next generation of men and women will be diminished to that extent. As high as the standard of intelligence may be in these towns, as compared with other towns in the State, or in New England, it is evident that it cannot stand this diminution, year after year, without sinking far below the general average, and without reaching a point of popular ignorance at which the people will not know how ignorant they are. The only towns in New England, which in 1847 deliberately refused to make provision for public schools, were New Shoreham, and East, and West, Greenwich,—three towns having a much larger valuation than many towns in Massachusetts, Vermont and New Hampshire which raised voluntarily by tax three times the amount required to be raised under the school law of Rhode-Island.

10. A beginning has been made in the establishment of town, village and district libraries, and in arranging courses of popular lectures on subjects of science, art, literature and practical life.

A library of five hundred volumes has been purchased for a district in Portsmouth, at a cost of about two hundred dollars, towards which Miss Gibbs contributed one hundred dollars. In Glocester, Burrillville, and Foster, there will soon be libraries, each containing about seven hundred volumes, and all of them owing their origin to a liberal donation by Amasa Manton, Esq., of this city. The Lonsdale Company have expended five hundred and fifty dollars in the purchase of a library of nearly one thousand volumes. In Westerly one thousand dollars, and in Slatersville, five hundred dollars, have been subscribed for the same object. In Coventry, there is already a library of four hundred volumes at Washington village, and there will soon be a second of nearly the same number of volumes, at Bowen's Hill. There are also, libraries at the Globe, Bernon and Hamlet, in Smithfield; and at Mumfords', Carolina, Peacedale, and other points in South Kingstown. Similar efforts are making elsewhere, and a work has thus been begun, which it is hoped, will not be suspended until every town, and every large village in the State is supplied with a library of good books, which shall carry the blessings and advantages of knowledge to every workshop, and every fire-side.

Seventeen courses of popular lectures have been established in as many villages, which have already awakened a spirit for reading, disseminated much useful information on subjects of practical importance, suggested topics and improved the whole tone of conversation, and brought people of widely differing sentiments and habits, to a common source of enjoyment.

11. As at once the source of most of the improvements which have thus far been made, and as the pledge of a still greater advance in future, there has been awakened a good degree of parental and public interest on the subject of schools and education. The profound apathy which hung like a dead man's shroud on the public heart, has disappeared, and parents are beginning to co-operate with school officers and teachers in carrying out the purposes of the law; and the school interest is fast becoming a prominent interest in the State. Let it once become such—let men read, think, talk and act about it, as they do about making money, or carrying a political election or propagating a creed, and Rhode-Island will become the model State of the Union. And why should she not? No other State possesses such facilities. Her territory is small, and every advance in one town or district, can easily be known, seen and felt in every other. Her wealth is abundant,—more abundant, and more equally distributed than in any other state. Her population is concentrated in villages, which will admit of the establishment of public schools of the highest grade. The occupations of the people are diverse, and this is at once an element of power and safety. Commerce will give expansion; manufactures and the mechanical arts will give activity, power, invention and skill; and agriculture, the prudence and conservatism which should belong to the intellectual character and habits of a people. Rhode-Island has a large city, to which the entire population of the State is brought by business or pleasure every year, and which should impart a higher tone of manners, intelligence and business, than can exist in a state without a capital; and fortunately, Providence has set a noble example to the rest of the State in her educational institutions,—in the provision of her citizens for schools, libraries, and institutions of religion and benevolence. Rhode-Island too has a history,—her own peculiar history; and her great names,—the names of Williams, and Clark, of Green, and Perry, of Brown, and Slater, are a rich inheritance, and make her sons and daughters who remove into other States, proud of their paternal home.

This is a just and noble pride. But let no Rhode Islander forget the immense fund of talent which has slumbered in unconsciousness, or been only half developed, in the country towns of this State by reason of the defective provision for general education. Let the past four years be the first years of a new era—an era in which education, universal education, the complete and thorough education of every child born or living in the State—shall be realized. Let the problem be solved—how much waste by vice and crime can be prevented, how much the productive power of the State can be augmented, how far happy homes can be multiplied, by the right cultivation of the moral nature, and the proportionate developement of the intellectual faculties of every child;—how much more, and how much better, the hand can work when directed by an intelligent mind; how inventions for abridging labor can be multiplied by cultivated and active thought; in fine, how a State of one hundred and fifty thousand people can be made equal to a state of ten times that number—can be made truly an Empire State, ruling by the supremacy of mind and the moral sentiments. All this can be accomplished by filling

the State with educated mothers, well qualified teachers, and good books, and bringing these mighty agencies to bear directly and under the most favorable circumstances upon every child and every adult.

In conclusion, Mr. Barnard remarked that this was the last annual meeting of the Institute which he should have the privilege of attending in his present official relations to the public schools. The state of his health precluded his discharging satisfactorily to himself the labors he had heretofore performed. As fellow laborers in a common field, he would say, to all, teachers, school officers, and citizens, persevere in the measures which have thus far been adopted, and adopt others more efficient. Act directly, and by all available means, on the public mind; quicken, enlighten; and direct aright the popular intelligence, as the source of all practical legislation, and judicious action on the subject of schools. Secure every advance in popular intelligence and feeling by judicious legal enactment—for public sentiment and action will not long remain in advance of the law. See to it, that the children of the State and especially those who live in the lanes and alleys of your city, or labor in your mills and shops, are gathered regularly during their school years into good schools. Establish institutions of industry, and reformation for vagrant children, and juvenile criminals. Educate well, if you can educate only one sex, the female children, so that every home shall have an educated mother. Bring the mighty stimulus of the living voice, and well matured thought on great moral, scientific, literary, and practical topics, to bear on the whole community so far as it can be gathered together to listen to popular lectures. Introduce into every town, and every family the great and the good of all past time, of this and other countries, by means of public libraries of well selected books. And above all provide for the professional training, the permanent employment, and reasonable compensation of teachers—and especially, of female teachers, for upon their agency in popular education must we rely for a higher style of manners, morals, and intellectual culture. Let the munificent offer of Mr. Charles Potter, of the Tockwotton House, for the purpose of a Normal School—a building having an extent of accommodation admirably adapted to the object, which thirty thousand dollars, however judiciously laid out, could not furnish—be accepted. Let it be known as the Rhode Island Normal School and Institute of Public Instruction—the depository of school furniture and apparatus—the office of your Commissioner of Public Schools—the intelligence office of teachers, and lecturers,—in fine as the head quarters of education. Such an Institution can be organized on a plan, which in five years will place the cause of public instruction in advance of where it will be in twenty under the operation of present agencies.

The meeting was then addressed by Professor Gammell, who presented the following resolutions, viz.:

Resolved, That the present condition of education in Rhode Island deserves to be regarded as a most encouraging beginning of the enterprise, but that in order to carry it forward and secure the high objects it aims to accomplish, the cause more especially demands the renewed and continued efforts of the people of the State.

Professor Gammell remarked that all which had hitherto been achieved, whether by public enactment or by private munificence and exertion, was but the beginning of the great work of educating the people. Many changes had been effected, better teachers were employed, better school-houses were erected, better views of education were prevailing, and noble examples of individual beneficence had been presented; but all these, great and important as they were, were but the commencement of an undertaking which was to be completed in future years. Whether we look at the seaport towns or the country, the city or the State at large, there was nothing that could be regarded as an end to be contented with, and to be left as finished. In Providence the school system has been in operation for eight years. We have between forty and fifty schools—primary, intermediate and grammar schools, and a high school. We have upwards of eighty teachers of different grades, and the whole system costs not less than thirty thousand dollars a year. Yet even here, with all these ample arrangements, which have been so long in existence, the standard is not so high, and good education is not appreciated, as the interests of the city really demand.

Boys, especially, were not kept at school so regularly or for so long a time as they should be. He was sorry to confess, that after all the effort and money which had been expended for free education here, so few were willing to spend time enough to receive it. The male department of the high school was seldom if ever full. Boys were constantly leaving it to go into stores to earn a little money, before their education was half completed. This showed that the work was only begun—that education was not appreciated in many portions of the community as it ought to be. The same at least was equally true of the State at large. What has been done was but the beginning. The State was like ground which had indeed been reclaimed from wildness and barrenness, which had been in part sown over with good seed, but it still required many a day of toil and patient culture before any full harvest of golden grain could be gathered in.

In order to carry forward what has been done, the resolution declared the necessity of renewed and continued effort—an effort which is never to be relaxed. The system must still be sustained by the wise provisions of public law, by the constant attention of public officers, and more than all by the fostering care and hearty co-operation of the people. This is what it especially needs. Laws and magistrates were in themselves insufficient. Individual citizens must give their time and attention to the subject as to a great interest of society, and by their precept and example lead the public mind up to a high appreciation of its transcendent importance. It is always a few individuals who mould the character of a community—they shape its opinions and direct its actions.

The presence of a few liberal minded and generous men is the true secret of the prosperity and social progress of many a thriving town. Their influence explains the social order and beauty, the intelligence and virtue that reign among the people. We need such men to carry forward our education both in the city and the country. Some such we already had, and among these he would venture to refer to the President

of this Institute, (Mr. Kingsbury,) now absent by severe sickness. Though occupied with a laborious profession, he had found time to accomplish a vast amount of benefit to the cause of education,—by soliciting funds and visiting different parts of the State, and by giving his constant influence to its advancement. Such men were always too few, and the higher interests of society suffer for the want of them.

Much has been said of late, said Professor G., about the peculiar mission of Rhode Island. But whatever it may be, we *must have education*. If we are to show the excellence of our peculiar ideas of government, or if we are still, as has lately been said, to demonstrate to all the world the benefits of public economy and of small salaries, we shall always need education, and that of the highest and best kind. We shall need it for the advancement of all our industrial interests which require the constant application of the principles of science. We shall need it to give us character and importance as a State,—to grow for us men who can assert our principles and vindicate our rights in the councils of this great and still extending confederacy.

Mr. Osgood, being called upon by the chairman, said that he was reluctant to follow addresses so able and finished, with any remarks so crude and off-hand as his must needs be. He felt himself able, however, from some little personal observation, to confirm the views that had been presented. He would speak particularly of the influence of town and district libraries and popular lectures.

It takes but a small paragraph in a newspaper to state that a library of five hundred or one thousand volumes has been established in a place. But the event is by no means small in itself 'What, in fact, is it but the introduction of a company of gifted instructors, many of them the very master-minds of the human race into the community? If great processions parade the streets to do honor to the remains of some noted soldier, or to attend some sacred relic, as the tooth of a monk or the toe of a hermit to its consecrated resting place, it would not surely be out of keeping to welcome yet more enthusiastically the approach of great minds who still live in their works. It would be no great extravagance for the whole town, men, women, and children, to turn out in festive procession and escort the selectors of good books to its receptacle.

He was glad that in some cases, gentlemen of affluence had made valuable donations of libraries to their native towns—thus reversing the parable of the Prodigal Son, and coming to the city not to squander but to increase their substance, and spare a portion for old friends and home in the country. He would like to see the custom universal, even although something of city luxury might be retrenched to furnish the bounty.

Mr. O spoke of cases within his own observation, especially of the excellent influence of the library in Lonsdale, founded there by the Corporation and very flourishing.

He spoke of the excellent influence of popular lectures in creating a taste for reading and desire for education. He insisted much upon the influence of lectures, and all assemblies for mutual improvement upon social manners and ideas of order. He described the recklessness of

boys in the streets, halls and churches of one of our towns where free schools are neglected, and contrasted the demeanor of boys left to their own caprices and those trained to good order at school.

He closed by referring to the earnest self-determination so characteristic of our State, and trusted that the indomitable spirit that had been shown in ancient years of trial would be manifested now in the arts of peace and learning. Let Rhode Island keep her staunch individualism, and be all the more true to it by earnest co-operation that shall make every man truer to himself by being truer to his neighbor and his God. He believed that we had every ground for hope in respect to the progress of education.

Mr. Bishop, Superintendent of the Public Schools of Providence, closed the proceedings of the evening with some very clear, forcible, and appropriate remarks, on the duty of parents and guardians of children to the schools. He spoke of the evils, which children who are now allowed to absent themselves from school, inflict on the good name of the city, and on the still greater evils which their vices and crime, the result of vagrant and idle habits in youth, will one day inflict upon its peace and prosperity. But the evil was not so easily remedied, as many suppose. Appeals to the children or their parents through the public meeting, or the printed page could not do it,—for such children and such parents do not attend these meetings or read such appeals. Nor was he satisfied that the coercion of law could correct it—if ever it was wise to invoke the authority of the law to enforce the attendance of children at schools. The establishment of an institution for young offenders rightly conducted, would do more than any thing else. He concluded by urging upon parents and citizens, the importance of creating a sound public opinion upon the whole subject of school attendance, and the education of children.

EVENING SCHOOLS.

We are indebted to Rev. EDWIN M. STONE, Minister at large in the city of Providence, for the following communication respecting a class of schools which we have often presented to the attention of the large towns in the State.

PROVIDENCE, JAN. 22, 1849.

Dear Sir:—I very cheerfully comply with your request to furnish you with some account of the evening school connected with the ministry at large in this city, together with such information of similar institutions elsewhere, as is at present in my possession.

This school was begun seven years ago, by the voluntary efforts of the teachers in our Sunday School. It is, I believe, with one exception, the oldest institution of the kind in New England. It was opened to meet a class of wants then existing, and every year since increasing, that were not supplied by the day schools. It was found that a very large number of children and youth of both sexes, did not attend the Public Schools—some, because they were destitute of decent clothing; others, because their parents were too poor to dispense with the income derived from their labor; and others, because they were unwilling to betray their deficiencies before pupils farther advanced, though younger, than themselves.

Besides the many between the ages of six and twelve years embraced in this enumeration, there were large numbers of boys and girls, of fifteen and sixteen years, who had not yet mastered the lessons of the spelling book, and who could with difficulty read words of three letter. These would gladly attend an evening school, whose pupils were alike deficient, when they could not be persuaded to enter a public school, where they must rank with the primary division, and stand in class with the smallest children. These, with other causes, were accumulating an alarming amount of juvenile ignorance, to ripen, in a few years, into adult vice.

Such were the circumstances under which this school was established. It has been continued to this day a voluntary institution, free to all, and deriving its support from friends who have appreciated its design. In the beginning, it was an experiment, and were this the appropriate place, it would be interesting to open its early history. Its perplexities, trials and difficulties, arising from the crudeness and waywardness of spirit of its first pupils, combined with a fund of amusing incidents, would furnish a graphic chapter of school experience. But time, patience, firmness and fidelity overcame them all. The experiment has been entirely successful—the gratifying reward of those ladies and gentlemen who have volunteered their labors in this department of philanthropy.

A general rule of the school is, to refuse admission to children who do, or from careful examination we believe can, attend the public schools. Our purposes to co-operate with the public school system, by receiving such, only, as for reasons already assigned, are cut off from the privileges of these excellent institutions.

Our school is kept about five months in each year, commencing in November. It has at present twenty-one teachers, including the general superintendent and two assistants in the writing department. For the last and present terms, a registration has been made of the names, parentage, nativity, residence, ages and employments of the pupils, with such other facts as may be useful for future reference. For want of complete lists of each year, I am unable to state the whole number who have received instruction. I think, however, that five hundred different pupils is not an over statement. Many of these begun with the study of the alphabet. Some have continued with us two, three and four years, and several have received their entire education at this institution. It is im-

possible to estimate the good that has thus been done. The redemption of even a single mind from ignorance, is not to be valued by any rule of arithmetic.

The number of pupils on our register the present term is one hundred and eleven—fifty-seven males, and fifty-four females. These were all voluntary applicants. About sixty applications have been rejected on account of our limited accommodations. Within the circle embracing these hundred and eleven pupils, are at least two hundred more of similar ages, and marked with the same educational deficiencies. Had we room, a little effort would add them to our list.

Fifty-five of our pupils are employed in factories, fourteen are learning trades, thirteen work at home, seven are at service, and the residue are variously occupied. Many of them have not attended any school for two years. One lad of thirteen has not been in school for five years, another of seventeen, for four years, and another of sixteen for seven years. Of course, they knew but little when they came to us. Five years afforded ample time to wipe from the memory most that had been acquired at eight. One young man of eighteen, entered our school last winter, who could with difficulty read words of one syllable. He was very anxious to learn, and I believe was not absent a single evening during the term. His progress was very encouraging. He is with us this winter, and has begun slate exercises.

Our system of admission is by tickets. This was begun last winter, and answered fully the purpose intended. It enhances the value of the privilege in the pupil's mind, and saves us from the annoyance of idle intruders. Our course of instruction embraces reading, spelling, writing, and arithmetic. The pupils are examined as they enter, and are classed according to their acquirements—each class, varying from four to six, enjoys the exclusive attention of a teacher. By this simple process, the classes become, practically, distinct schools, the attention of the pupils is constantly engaged, and a surprising amount of instruction is imparted. In reading and spelling, I think as much is done in an evening session of two hours, as can be accomplished on the ordinary plan in two days.

As is the case in the public schools, the morals, manners, and personal habits of the pupils, engage a due portion of our attention. In these particulars the most gratifying changes are visible. The rules of the school are less frequently transgressed than ever before. The pupils are more punctual and constant in their attendance. Order is more easily maintained. Obedience to teachers is more cheerfully rendered, and personal neatness is more general. The school is in excellent condition, and will compare favorably with more pretending institutions. I might go still more into detail, but perhaps have already said enough.

To Louisville, Ken. so far as I know, belongs the honor of establishing evening schools. They were begun in that city about fifteen years ago, and, as I understand, are embraced in the general school system. Five schools of this description are now in operation. They are kept four months, beginning the first Monday of November.

They are taught by teachers of the day public schools, who are allowed \$60 by the city council, and are permitted to receive \$2 for the session from such pupils as can afford to pay. The schools have from twenty to twenty-five pupils each, mostly young men, mechanics who are unable to attend school during the day. The branches taught comprise the ordinary English studies. The schools are represented as valuable auxiliaries to popular education.

Evening schools were established in Cincinnati, Ohio, about 1841. They were opened for such boys as were forced to work during the day, (mostly apprentices and children of poor people,) and are supported from the common school fund. The common English branches are taught. There are five schools, under the charge of nine teachers. The expense of tuition the past year was \$592.25. The whole number of pupils 446, engaged in 84 different employments. The schools are conducted like the day schools, and have thus far worked well. The committee in their annual report say, they "have not limited the scholars by number or age; they have refused

none the advantages of these schools, who were willing to attend, and anxious to be instructed. The ages of pupils range from 9 to 32 years. No provision appears to have been made for females. This is a material defect, as in a city of not less than 100,000 inhabitants, there must be hundreds of females as deficient in their education as are the males for whom the schools have been opened.

There are fifteen evening schools in the city of New York—eleven for males, and four for females. Thirty-six teachers are employed, at an expense of \$8900. Pupils registered, 3832 males, 1278 females, making an aggregate of 5110. Whole number in attendance, 3266—males 2414, females 852. These schools constitute a part of the city school system, and are supported from the public treasury. The committee report, that "all these schools are now well organized, and most of them attended by as many pupils as the school rooms will accommodate, and the teachers employed can well attend to." They recommend an enlargement of the accommodations to meet the increasing want. The happiest results, they believe, "will attend the opening of evening schools for females. The four that have been organized are numerously attended by a worthy and deserving class of young ladies, who are in most cases employed during the day at some trade or occupation by which they gain an honest livelihood. They are of the class who need the benefits afforded them, and all seem to take a deep interest in their studies." The committee add, "that so far as their observation extends, (and they have taken special pains to inform themselves of the fact, having visited these schools every evening, since they have been opened,) none of the evils that many apprehended before the evening schools for females were commenced, are likely to result from their establishment."

For twelve years past, an evening school has been in successful operation in Boston, in connexion with the Warren street chapel, under the charge of Rev. C. F. Barnard. It is sustained by voluntary contributions of friends, and the gratuitous services of teachers. It is open two evenings in the week for boys, and two for girls. The last annual report shows 140 in the male department, and 150 in the female. Two-thirds of the pupils are foreigners. About one-half of the whole number are Catholics.

In 1846, an evening school was opened in Boston, for adults, under the direction of an association. The city government gave the gratuitous use of their school rooms. The expense of fuel, lights, stationery, &c., is defrayed by a small tuition fee, and the contributions of the friends of adult education. The results have afforded satisfactory evidence to the friends of the movement, that with moderate pecuniary aid, their plan will prove an immense blessing to the uneducated classes.

In Lowell, Mass., an evening school is kept five months in the year. This school, in its general features, resembles our own. Like ours, it is connected with the ministry at large in that city, and is under the supervision of Rev. Horatio Wood, assisted by seventeen teachers, whose services are gratuitous. Of 180 who joined the school last year, 100 were females. No limit is imposed upon age. Twenty three pupils were adults. Most of the pupils work in the mills. This school has been very successful.

In the winter of 1847, an evening school was opened in Salem, Mass., under the direction of Mr. John Ball, assisted by 26 teachers. This school contains 241 pupils. It is kept two evenings in the week for males, and three for females. It is opened by reading the scriptures, and a short devotional exercise. At recess and at other intervals, singing is introduced, and select passages of scripture are repeated by the pupils. Frequent addresses are made to them by the superintendent, all designed to leave a strong moral impression. This school embraces some of the features of a sabbath school. As no restriction is placed upon applicants, the ages of pupils vary from 11 to 32 years. Most of them are apprentices, domestics and operatives in factories, ropewalks, &c. Some of them are colored, and a portion of them foreigners. The expenses of the school are defrayed by private subscription. The services of the teachers are gratui-

tous. This is a highly meritorious school, and has secured the warm sympathies of the citizens of Salem.

Two evening schools have been recently opened in New Bedford, Mass., one for males and the other for females. There are about 100 pupils in each, two thirds of them being colored. The schools are organized upon the same plan as the regular public schools, and the city has appropriated \$600 for their support. A portion of teachers are paid, the residue labor gratuitously. The schools are kept four evenings in the week. Adults are received, and none under 12 years of age are permitted to enter. The common English branches only, are taught. The interest among the pupils, colored as well as white, is healthy and inspiring. The sympathy and interest of the citizens in this movement is very great. Thus far the plan has succeeded admirably.

I have thus given you, in a condensed form, some account of our evening school, and what I know of similar schools in other places. In preparing this hasty sketch, I have left untouched many points upon which I should like to enlarge. But I will not now trespass on your space or patience. It may be sufficient to say, that these schools have uniformly satisfied the expectations of their friends. They have met wants, that under existing circumstances could not have been met by other means. If any one of them has accomplished less than its founders hoped, it has been owing to insufficient pecuniary resources, and not to a defective plan. Of their utility, no one who has watched their operations, can doubt. Whether they are to become a part of a settled system of education, the future alone can determine. That they will be necessary in cities and manufacturing towns, for many years to come, is to my mind perfectly clear. This necessity will cease only when such changes shall have been effected in social economy as will not probably be witnessed the next quarter of a century.

There are in this city, at the present moment, not less than four hundred children between four and sixteen years of age, who, for causes assigned in the second paragraph of this letter, do not attend the day schools. There are at least two hundred more, between the ages of sixteen and twenty, whose education consists in an ability to read poorly, and perhaps write their names. And there are not a few of the same ages, who can do neither. These are mostly foreigners, and they represent a rapidly increasing class. But whether four years of age or twenty, they should be provided for. Most of them, I am confident, can be brought into evening schools; but except by influences more potent than the law sanctions, a small proportion only of those the law has provided for, can be induced to enter the day schools.

Providence has done nobly for the cause of popular education. Her free schools are among the richest monuments of her liberality. But, one step more remains to be taken. That is to provide schools for the classes of whom I have spoken. This will be a crowning glory of her educational work. Three years of fostering care and faithful instruction, will do much to qualify all between the ages of thirteen and twenty, to become useful and respectable citizens. Three years of neglect, will sow in this class the seeds of a social pestilence more to be dreaded than the cholera. If any stimulant to action, other than the facts just stated, is needed, it may be had in the following statement, with which I will close this letter. From Sept. 2, 1847, to Oct. 26, 1848, less than fourteen months, there were committed to prison in this city, sixty-two persons who could not read, and one hundred and twenty who could not write. So intimate are ignorance and crime. If the true wealth of a community is its intelligence and virtue, and if it is a wiser economy to support schools than to feed prisons, then we cannot be too earnest in our endeavors to give to every child and youth the blessings of moral and intellectual culture.

Very sincerely,

Your friend,

EDWIN M. STONE.

To Hon. HENRY BARNARD:

Extract from the Fourteenth Report of the Commissioners of National Education in Ireland, for the year 1847

The subject of Evening Schools was for the first time referred to in our last report. We stated that many had been opened in different parts of the country, which afforded the means of instruction to adults and other persons, engaged during the day in their several occupations. We announced, at the same time, the establishment of an Evening School on our premises in Marlborough-street, which has been conducted much to our satisfaction. The average attendance during the past year was about 200, composed partly of boys who could not attend school during the day, and partly of adults.

The anxiety evinced by boys, and by young men from eighteen to twenty-five years of age, to participate in the advantages afforded by this school, confirms our opinion that such institutions, if well conducted, will be of incalculable benefit to the working classes; and that, if established in large towns, or in populous localities adjoining them, they will form an important step in the education of the artisan between the common National School and the Mechanics' Institution. After the toils of the day, the humble laborer and the tradesman, will find in Evening Schools the means of literary and moral improvement, and a protection against temptations to which, at their age, this class of persons are peculiarly exposed.

We received during the year numerous applications for aid to evening schools, the majority of which we rejected, being of opinion that our grants for this purpose should as yet be confined to large towns, in which trade and manufactures are extensively carried on, and where alone we at present possess the means of inspection. We made grants to 12 evening schools in the course of the year. It is probable that the number of applications for assistance will gradually increase. Should this be the case, we shall take the necessary steps to ascertain that the evening schools are properly conducted, and that the system of education carried on in them, is adapted to the varied occupations of the artisans, mechanics, and others, who are desirous of obtaining the special instruction which their several trades and avocations require.

Extract from the Second Annual Report of the Evening Free School in Salem Mass., presented May 15, 1849, by Mr. John Ball, Principal.

The school was opened on the evening of January 1, 1849, and closed May 14. Four evenings in every week have been devoted to instruction, viz: Monday and Tuesday for females, and Wednesday and Thursday for males. The books used have been Worcester's Primer, Worcester's Readers, Emerson's Second Part, and Davies' Arithmetic. The progress made by the scholars has been as wonderful as last year. Men and women, girls and boys, from ten or twelve to 35 and 40 years of age, have attended, many of whom commenced with the alphabet. Some merely knew their letters. Numbers knew nothing of the formation of a letter with a pen, nor had any knowledge of figures. These individuals have learned to read, write and cipher, with a facility that surprises every one.

The success which has attended the efforts of the teachers is most gratifying, and for years to come will numbers of the pupils remember and love the kind teachers who have so patiently and perseveringly instructed them.

Among the many instances of successful effort, one may be stated. A man, 36 years of age, entered on the 18th of January; he only knew his letters, and commenced with Worcester's Primer. In two months he could read page after page of Worcester's third part Reader: His teacher watched his efforts, and noticed repeatedly the perspiration on his face, from his eagerness to gain knowledge. The pleasure manifested by him while reading in my hearing, on the 22d of March, I am unable to describe.

The improvement made by the females, in reading, writing and ciphering, has been very rapid. Scholars from 15 to 30 years of age, who were unable to read, as well as those who were taught their letters last year,

have learned to read with much ease. Many who now write a plain, decent hand, with a pen, were first taught by their teachers the formation of letters with a pencil on the slate. This method has been found very successful, and their writing books are so neat and clean that they excite the admiration of all who examine them.

In the Male Department we suffered for the want of about twenty Gentlemen as deeply interested as the Ladies, and could we have had that number from the *first* evening to the *close* of the school, a greater improvement would have resulted in every particular, as each teacher would have become acquainted with the disposition, the wants and propensities of those under his care. This improvement is very perceptible in the Female Department, wherethe same teachers have been present nearly every evening.

The Scholars in general deserve much praise for their good behavior and close application to their studies.

The whole number of names entered on the REGISTER of the School is,

223 Males,
and 303 Females.

Total, 526.

The average attendance has been

73 Males,
and 125 Females.

making 198 Instructed

every week.

Highest number in attendance on one evening, was 133 Males, and 175 Females.

Average attendance of Teachers has been 12 Gentlemen, and 23 Ladies.

Average attendance of Scholars each month, has been,

January,	102 Males,	128 Females,
February,	105 do.	126 do.
March,	68 do.	136 do.
April,	34 do.	117 do.

making it evident that from about the 1st of November to the 1st of April is the best time for such a school, as during the cold weather many of the men and boys are unemployed.

Extract from Report of the Committee of the Board of Education on Evening Schools in the City of New York, for 1848-49.

The number of Evening Schools opened the past season, and continued for the term of seventeen weeks, was *eleven* for males, and *four* for females.

The actual expense of conducting the Evening Schools the past season, after deducting the estimated value of the property now on hand, will be found to be \$11,861 45.

The number of pupils that entered these schools was 5,219 males; and 1,757 females; in all, 6,976.

There were 581 that entered these schools who were over 21 years of age; 2,944 between the ages of 21 and 16; making 3,525 who were too old to attend day schools. The number that could not read was 872: that could read but imperfectly, 1,508. The number that could not write 1,390, and 3,967 were not acquainted with the simple rules of arithmetic.

Your Committee would impress upon the minds of all this one important fact,—that Evening Schools are designed more particularly for those who cannot attend the day sessions of our well-provided Public Schools, and whose only leisure time is after the close of the labors of the day. It is amongst this class we see the greatest amount of human misery, ignorance, and suffering. A free school might be erected upon every block of this great city, and the doors thrown wide open for the reception of all who might choose to enter, yet this vast, increasing, and deserving class of our population, from the circumstances of their condition, would not be benefitted thereby. It has been the object of all our efforts to offer every inducement to those who cannot attend the day schools, to be present at the night sessions, by making them attractive as well as instructive.

REPORTS AND DOCUMENTS,

RELATING TO THE HISTORY AND CONDITION OF PUBLIC SCHOOLS
OF THE SEVERAL TOWNS.

PROVIDENCE.

1. HISTORY OF PUBLIC SCHOOLS.

[The following historical notice of the efforts made by individual citizens or by the town and city of Providence, to establish and perfect a system of public instruction, are gathered mainly from Staples' Annals of Providence, and from the Reports of Nathan Bishop Esq., the Superintendent of Public Schools, and documents in the possession of the last-named gentleman. To Judge Staples, and Mr. Bishop, for permission to use the results of their labors, the thanks of the Commissioner are due, and most cordially returned.]

"In May 1663, the proprietors passed the following order: "It is agreed by this present Assembly, that one hundred acres of upland and six acres of meadow (or lowland to the quantity of eight acres, in lieu of meadow) shall be laid out within the bounds of this town of Providence; the which land shall be reserved for the maintenance of a school in this town; and that after the said land is laid out and the bounds thereof set, it shall be recorded in our town records, according unto the bounds fixed, and shall be called by the name of the School Lands of Providence." This is the earliest grant now to be found in the records, and the earliest reference to a school, or any means of education. From a petition of John Whipple, Jr. in the files of the city clerk's office, presented to the town January 28, 1684, it appears, that a whole purchase right of land, had long before that time, been set apart for the use and benefit of a school. The prayer of the petition was, that lands might then be laid out under it. It does not appear what was done with this petition, nor is there any mention on the records of the grant referred to in it, unless it is the grant first recited, and it would not seem probable that the petitioner could have confounded these grants, or misrecited the one intended by him, for he was town clerk in 1670, 1671, 1677, 1680 and 1681.

The first schoolmaster in Providence, of whom any memorial remains, was William Turpin. When he came, is not known, but he was here the 11th day of June 1684. On that day he executed an indenture with William Hawkins and Lydia his wife, in which he covenanted to furnish Peregrine Gardner with board and schooling for one year, for six pounds; forty shillings of which in beef and pork; pork, at two pence, and beef, at three-pence half-penny, per lb; twenty shillings in corn, at two shillings per bushel, and the balance in silver money. He was to be instructed in reading and writing. This instrument is in the hand writing of Mr. Schoolmaster Turpin, and exhibits plenary proof of his ability to teach writing. It also proves conclusively that schoolmasters in those days were not very exorbitant in their demands.

The following January, Mr. Turpin presented a petition to the town, in these words:

"The humble request of William Turpin, now schoolmaster of the said town, is, that whereas there was a parcel of land formerly granted by the ancestors of said town and was to be to the use and benefit of a schoolmaster, as by the records of the town book will more at large appear, which said order or grant was read to me in the presence of several gentlemen, that were the occasion of my settling at this town, who promised to be instrumental in the performance thereof. Gentlemen, my desire is, that the aforesaid land may be forthwith laid out, ac-

according to the said order or grant, and that the said master or his heirs may be invested in the said land, so long as he or any of them, shall maintain that worthy art of learning. Thus leaving it to you, gentlemen, to give a speedy answer, according as you shall think meet, I rest yours to command,
WILLIAM TURPIN."

There is no memorandum what answer, if any, was returned to this petition. How long the petitioner "maintained that worthy art of learning," does not appear. It was to him, as it ought always to be to those who engage in it, the stepping stone to honors, if not to fortune. In 1722 and 1723, he represented the town in General Assembly; in 1727, he was town clerk; and died, town treasurer, in 1744. He held the last office from 1722 to 1736, and was again elected to it in June 1743. He died in 1744, and before April.

In January 1696, John Dexter, William Hopkins and others, petitioned the town for a piece of land on Dexter's lane, or Stamper's hill, on which to erect a school house. The petition was granted, and there our information ends. Dexter's lane is now called Olney street.

When the proprietors divided the land lying on the west side of North and South Main streets, into warehouse lots, they left a lot opposite the west end of the court house parade, for a school-house lot. The first reference to it, is on the plat of the warehouse lots in the proprietor's office, bearing date in 1747. How long before this date, the lot was set off for this purpose, whether it was set off in pursuance to the grant referred to in Mr. Turpin's petition, or in answer to the petition of John Dexter and others, cannot be ascertained. Nor can it be ascertained when a school house was first erected on it. The first notice I have been able to find of it on the town records, is in 1752. In that year, Nicholas Cooke, Joseph Olney, Esek Hopkins, Elisha Brown and John Mawney, were appointed "to have the care of the town school house, and to appoint a master to teach in said house." The school committee the following year were Nicholas Cooke, John Mawney, Nicholas Brown, Elijah Tillinghast, and Daniel Abbot. The next year the school house was leased by the town to Stephen Jackson, schoolmaster, for three months from March 1st. There is no further reference to the matter until 1762, when the town clerk was directed to lease the house again. The schoolmaster probably received all his compensation from his pupils; the town, as a corporation, simply furnishing a room at a fixed rent. There were at least two other schools in town, as early as 1763. Mr. George Taylor, in 1735, had the use of a chamber in the state house, to keep a school in; and in 1751, Gideon Comstock, Alexander Frazier, Joseph Potter, Thomas Angell, James Field, Barzillai Richmond and Nehemiah Sprague, had permission to build a school-house on the west side of the river, "on vacant land a little above Joseph Snow Jr.'s dwelling house, the street being wide enough." They stated they had then subscribed enough to erect a house. The location of this house must have been near the public pump in Broad street. After the court house was burned, in 1758, the town endeavored to possess themselves of the lot on which it had stood, in lieu of the one on Main street. There were great difficulties in the way, the court-house lot having been originally granted only for the use of a colony house, and the school-house lot, only for a school-house. The difficulties were, however, overcome, and in February 1765, a committee of the town transferred the fee of the school-house lot, and purchased the other.

In 1767, the town again took up the subject of education, with the apparent design of providing schools for all the children of the inhabitants. At a town meeting holden December 8, they resolved to purchase or build three school-houses for small children and one for youth, to provide instructions and pay the expense from the treasury, and these schools to be under the supervision of a school committee. John Brown, John Jenckes, Nathaniel Greene, Charles Keene and Samuel Thurber were appointed a committee to select locations for the houses, to purchase land and make contracts for their erection. Darius Sessions, Samuel Nightingale, Jabez Bowen and Moses Brown were appointed to prepare an ordinance for the building, supporting and governing the school. These committees reported to an adjourned meeting, holden on the 1st of January 1768. The record states, the reports were both rejected. Neither of them is on file or recorded.

That made by the last named committee, in the hand writing of the late Gov. Bowen, I have lately found, accompanied with a memorandum in the hand writing of the late Moses Brown. They are as follows:

"The education of youth, being a thing of the first importance to every society, as thereby the minds of the rising generation are formed to virtue, knowledge, and useful literature, and a succession of able and useful men are produced, with suitable qualifications for serving their country with ability and faithfulness; and, institutions of this nature are the more useful, by how much the more liberal and free, the enjoyment of them is.

This town having taken the same into consideration at their last meeting, held the 2d day of December last past, voted to purchase and erect three small school-houses, for the education of children, and one larger one for the education of youth, and that proper masters should be provided and keep for each house at the town's expense.

Upon consideration whereof, be it enacted by the town of Providence, and by the freemen of the same it is hereby enacted, that four school-houses be erected or purchased, within the compact part of this town, as soon as may be. That one be purchased, or a new one built, on the west side of the great bridge, at or near the place where the school-house at present stands; that one be erected at the southerly part of the town, in the back street, near Power's Lane; that one other one be built at the northerly part of the town, in the back street, near Richard Brown's lot; and that one larger one be erected on the lot where the old court-house formerly stood. The three small ones not to cost more than three hundred pounds, lawful money; to be built of wood, and pretty near the form and dimensions of that one over the great bridge already built.

And be it further enacted, that the large school-house to be built on the old court-house lot, shall be built with brick, according to the plan presented to this meeting by the committee, and that the finishing and completing the same, shall not exceed the sum of four hundred and eighty-five pounds lawful money, and that the same shall be finished on or before the first day of December, next after this date. And whereas, there is a sum of money, in the hands of the town's committee, which arose from the sale of the old school-house and lot, be it further enacted, that the whole of the said sum of money be appropriated towards building the several school-houses that are to be erected at the town's expense.

And be it further enacted, that this town will take the remainder of the expense that shall accrue by building the several school-houses, on itself, and that the town will from time to time, and at all times hereafter, supply said houses with good and sufficient masters, at all times to come, and that fire wood shall be supplied said schools at the town's expense.

And be it further enacted, that the sum of five hundred and twenty pounds, lawful money, be assessed and levied on the polls and estates of the inhabitants of this town, on or before the first day of February next, and that the same be collected and paid into the town treasury, by the collector of taxes, on or before the day of next, to be applied for defraying the expenses, providing materials, and building the said four school-houses.

And be it further enacted, that the following rules, orders and regulations, shall be observed in the governing the said schools, that is to say:

That the school-house already built on the west side of the great bridge, shall remain under the direction of the present proprietors, till such time as all the other houses shall be finished, and fit for the reception of scholars; that then, all the four houses shall be furnished with masters at the expense of the town.

That a school committee shall be annually chosen, of persons dwelling in different parts of the town, who are hereby clothed with ample power and authority, from time to time, to appoint masters and ushers, in all or any of the schools, fully qualified to do the duties of their respective stations, to agree with each for their several salaries, and to pass certificates to the town treasurer, for their receiving the same; which agreements, in writing, shall be obligatory on the town, at all times, and said committee's certificates thus passed, shall be a sufficient warrant to the treasurer for his payment of said wages.

And further, in case of any complaint to said committee against any of the masters or ushers, as to insufficiency, neglect, partiality or misconduct, said committee for the time being, are required to take the same into immediate consideration, and act thereon as shall to them seem just and right, either for the acquittal or removal of said masters or ushers, and the appointing of others, in his or their room, or stead. That any repairs or alterations that may be at any time hereafter thought needful in said houses, shall be laid before said committee, and be by them inquired into, and if found fit, and reasonable, shall be laid before the town for them to act and determine upon.

That every inhabitant of this town, whether they be free of the town or not, shall have and enjoy an equal right and privilege, of sending their own children, and the children of others that may be under their care, for instruction and bringing up, to any or all of the said schools. And that each and every scholar, before they be admitted into any of the small schools, shall have learnt their letters and acquired some acquaintance with spelling. And before they be permitted to enter the larger school, they must have gained considerable knowledge in reading and writing, and that all those who may be thus qualified, shall and may be admitted to all the advantages of education that may be taught in either of the respective schools. And in case any dis-

pute should arise, touching the qualification of any child or children, the same shall be determined by the school committee.

That not exceeding two hours in each day, shall be taken up in the large school, in perfecting the scholars in reading, accenting, pronouncing and properly understanding the English tongue. That the remaining school hours shall be employed in teaching the children and youth in writing, arithmetic, the various branches of mathematics, and the learned languages. The whole to be taught in one or separate apartments in said house, under the direction of said committee, as the circumstances of said school, from time to time shall require, and as will have the best tendency to increase and spread knowledge and learning.

That children under the care of non-resident freeholders, shall be admitted into said school, provided said freeholder shall pay the sum of twelve shillings, lawful money, in the school tax annually; and also those inhabitants of the town who pay twelve shillings, lawful money, annually, to the support of the school, if they have no children nor apprentices of their own, shall have liberty to send the children of any friend or relation of theirs living out of this town.

That the masters in each school, during the common school hours, shall be obliged to give a constant attention to the duties of their offices, and not engage in any employ, that might impede the due instruction of the youth under their care, and also that they keep up in their several departments, a strict, but not passionate and severe, discipline. And for the raising a laudable emulation to excel in the various branches of learning, said masters shall, from time to time, range the scholars in proper classes, according to their several attainments, annually or quarterly, and those that excel in learning in each class, shall have some honorary marks of favor or distinction, conferred on them by the master.

The committee for the time being, shall be the visitors to the said schools, to inspect the conduct of the several masters, and the proficiency of those under their charge; their visitation to be made quarterly at least.

That none shall be received into the schools from other towns, when the numbers are so large in the schools, as that the proficiency of those that belong to this town may be obstructed; but when there is sufficient room in any of the houses, children may be received in from any other towns, on the approbation of the committee, they settling what sums of money shall be paid by the parents or guardians of such children, for the supporting of the schools, receiving the same and passing of it to the town treasury."

"1768. Laid before the town by the committee, but a number of the inhabitants (and what is most surprising and remarkable, the plan of a free school, supported by a tax, was rejected by the poorer sort of the people) being strangely led away not to see their own as well as the public interest therein, (by a few objectors at first) either because they were not the projectors, or had not public spirit to execute so laudable a design, and which was first voted by the town with great freedom. M. B."

The strange and surprising result has been seen in almost every community which has refused to establish free schools. Another committee reported at the same time that there were then 102 houses, 911 inhabitants (including 189 between the ages of 5 and 14) fit for schooling, on the west side of the river.

The votes of the meeting holden December 2d, were in effect repealed, by the rejection of the reports of the committees, and the town at this meeting resolved to build one brick school-house, thirty feet by forty, and two stories high, near the court-house, out of the proceeds of the old school-house lot sold in 1765, and a tax of £100, provided the sum of £182,17 should be raised by private subscriptions for the same object. The probability is, that this was equal to the proceeds of the old school-house lot and the tax of £100. In the house so built, the town agreed to support a free school, to be under the direction of a committee of nine, of which the town council were to be *ex officio* members. The attempts to raise the sum required by subscription failed, and the town met again on the subject, on the first day of February. It was then voted, to apply the proceeds of the old school-house lot to the erection of the school-house on the old court-house lot, so far as they would go, if individual proprietors would contribute what would be sufficient with that to complete the house; the house so built to be kept in repair by the proprietors, and the town to have the use of the lower story. In case this arrangement could not be completed within thirty days, the town's committee were instructed to erect so large a house as they could, with the proceeds of the old lot and house.

The subscription was not filled within the limited time, but by the middle of July it was, and John Smith was appointed to build the house which now stands on the lot. The town had the ownership of the lower story, and the proprietors, of the upper. Subsequent to this, the town frequently appointed masters to keep school in their part of the house, and passed rules

and regulations, for the good government of both the schools kept in it. A school committee were also frequently appointed, which visited these schools occasionally, and also the other private schools kept in the town. Things continued in this inauspicious state until 1785. It would seem that the town had then become more sensible of the disadvantages of being joint owners of a school-house with individual citizens and of being co-partners in the business of education, with any one. At any rate, they found a deficiency in benefits received. In April, they appointed a committee to draw up a plan of education for the government of the several schools in the town. This committee soon discovered, and in July reported, the cause of ill success. They say:

"They have endeavored to suggest some general outlines for the regulation of schools, as they are now supported by individuals, but are of opinion, that no effectual method can be devised for the encouragement of learning and the general diffusion of knowledge and virtue, among all classes of children and youth, until the town shall think proper to take a matter of so much importance into their own hands, and provide and support a sufficient number of judicious persons for that purpose."

The town were not, however, willing to adopt the measure proposed. They still pursued the half-way, vacillating course, worse in fact, than no municipal action on the subject. They appointed a school committee, to have the government of the town school-houses, to appoint masters and give directions for the government of schools kept in them, and to take charge of such other school-houses in town as the proprietors should resign to them. The proprietors of the school-houses had become convinced of the inexpediency of individuals being interested in school-houses, for the accommodation of common schools. Those interested in "the brick school-house," agreed, at once, that if the town would put and keep that building in repair, they should have the use of it for two years, provided they would keep up a school in it for one year. Previous to this time, another set of proprietors erected another school-house near the north end of Benefit street, the wooden building which stood there in 1828, and then known as the first district school-house. Its original name was "Whipple Hall." They also offered the use of their house to the town, for a public school, for a reasonable rent, the town keeping it in repair. The town accepted the charge of these houses on these terms. They also set apart all moneys which should be received of the State, or the United States, for damage done "the brick school-house," during the revolutionary war; all rents to be received for market-house cellar, chambers and stalls, and all wharfage to be received on the market-house lot, as a fund for the support of public schools. It is not probable that this arrangement lasted long, or that much good grew out of it. The funds set apart for the purpose were quite too small. They might have been, and probably were, mostly consumed in keeping the houses in repair, and paying the rents demanded. The result of the arrangement then, would simply have been, the establishment of public schools, which all might attend who would pay the tuition demanded by the instructors. This seems probable from the fact that afterwards, in 1791, some of the citizens petitioned the town to establish free schools. The petition was referred to the school committee. They reported in August, that it is expedient to purchase the proprietors' interest in "the brick school-house," and also in "Whipple Hall," and build two new houses, one at the south end of the town, and the other on the west side of the river. They recommended that the schools so established should be under the care and supervision of the school committee, who should appoint the necessary instructors. There was one very singular provision in the report, which almost reconciles us to the fate which it met with. It is stated that the Friends then had a school of their own, in which their children were instructed, and would continue to be instructed, without expense to the town. The report recommended that they should be permitted to draw from the town treasury, money to support their school, in proportion to the number of children attending it. It would have been indeed humiliating, if public education had been subjected to evident sectarian influence, by the descendants of those who had first severed all connexion between religion and civil government. The town directed the

interests of the proprietors in the two school-houses to be purchased. This was not then effected, and the matter was permitted to slumber from August 1791, to September 1792, when the town again resolved to establish free schools, and directed the town council to carry into effect the report of the committee of August 1791. How fully do these proceedings abound in good resolutions! The town council did nothing more than the school committee the year before, toward the establishment of free schools. The next year, the town authorized the school committee to make some arrangements with the proprietors of the "brick school-house," so that the interior of the building might be altered. In 1794, and after that, frequent directions are given for the repair of this house, and for the drawing up of regulations for the schools, but nothing more about free schools. In September 1795, the town again resolve to establish "schools for the free education of the children of the inhabitants of the town, and that the expense of supporting the same be defrayed out of the town treasury." The report of the school committee made in August 1791, was revived, and the town council were again directed to carry the same into effect. Like all previous movements on this subject, the passage of these resolutions ended the matter.*

On the 16th of November 1785, Rev. Enos Hitchcock, pastor of the Benevolent Congregational Church, delivered a discourse on education "at the request of the proprietors of the school-house on the west side of the River." This able discourse was very well received by the audience, and was published by the gentlemen, at whose request it was prepared. As a document full of sound views, and as having a historical value, we should be glad to give it entire.

In October 1798, the "Providence Association of Mechanics and Manufacturers,"—an Association, which by its public spirit and far-sighted liberality has identified itself with the organization and support of almost every institution and measure whose aim is to advance, purify, and bless the city or the State—appointed a committee to "enquire into the most desirable method for the establishment of Free Schools." This committee, in January 1799, recommended "immediate application to the General Assembly, to provide for the establishment of Free Schools throughout the State." The recommendation was approved by the Association, and the committee were authorized to draft a memorial to be presented at the next session of the General Assembly. This was ably done as follows:

"To the Hon. General Assembly of the State of Rhode Island, &c., to be holden at East Greenwich on the last Monday in February, A. D. 1799. The memorial and petition of the Providence Association of Mechanics and Manufacturers, respectfully represents:

That the means of education which are enjoyed in this State, are very inadequate to a purpose so highly important:

That numbers of the rising generation, whom nature has liberally endowed, are suffered to grow up in ignorance, when a common education would qualify them to act their parts in life with advantage to the public, and reputation to themselves:

That in consequence of there being no legal provision for the establishment of schools, and for want of public attention and encouragement, this so essential a part of our social duty is left to the partial patronage of individuals, whose cares cannot extend beyond the limits of their own families, while numbers in every part of the State are deprived of a privilege which it is the common right of every child to enjoy:

That when to that respect, which, as individuals we feel ourselves bound to render to the representatives of the people, we add our public declaration of gratitude for the privileges we enjoy as a corporate body, we at the same time solicit this Honorable Assembly to make legal provision for the establishment of Free Schools, sufficient to educate all the children in the several towns throughout the State. With great confidence, we bring this our earnest solicitation before this Honorable Assembly, from the interest we feel in the public welfare, and from the

* Staples' Annals of Providence, pp. 492—503. The remaining portion of this sketch is compiled from Mr. Bishop's Reports, and from documents in his possession.

consideration that our society is composed of members, not originally of any one particular town, but assembled mostly in our early years from almost every town in the State:

That we feel as individuals, the want of that education which we now ask to be bestowed on those who are to succeed us in life, and which is so essential, in transacting its common concerns. That we feel a still greater degree of confidence, from the consideration that while we pray this Honorable Assembly to establish Free Schools, we are at the same time, advocating the cause of the great majority of children throughout the State, and in particular, of those who are poor and destitute—the son of the widow, and the child of distress.

Trusting that our occupation as mechanics and manufacturers ought not to prevent us from adding to these reasons an argument which cannot fail to operate with those to whom is committed the guardianship of the public welfare, and that is, that liberty and security, under a republican form of government, depend on a general diffusion of knowledge among the people.

In confiding this petition and the reasons which have dictated it, to the wisdom of the Legislature, we assure ourselves that their decision will be such, as will reflect on this Honorable Assembly the praise and the gratitude, not only of the youth of the present generation, but of thousands, the date of whose existence has not commenced.

Respectfully submitted by John Howland, Joel Metcalf, William Richmond, Peter Grinnell, Richard Anthony, Grindall Reynolds, Samuel Thurber, Jr., Nathan Fisher, committee."

The memorial was presented by the Representative of Providence at the February session in 1799, and the whole subject was referred to a committee, who reported at the June session by bill. The bill was printed and referred to the freemen for instruction. The instructions given by Providence, were as follows:

"To John Smith, William Rhodes, Thomas P. Ives, and David L. Barnes, Esqrs.:

Gentlemen:—Placing in you the fullest confidence, we have selected you to assist in the public councils of the State, not doubting your readiness to promote such measures as may tend to advance the general interest as combined with the private happiness of the people. It never being our intention to bind our Representatives by instructions, in the ordinary business of legislation, we should not have addressed you at this time, but from the deep interest we feel in the question submitted by the General Assembly to their constituents. On the question of free schools, gentlemen, all party distinctions are broken down; here there can be no clashing interests. On this subject one section of the State cannot be opposed to another. Before this benevolent idea, every partial, narrow motive of local policy must disappear. As we are confident, that the general object of the bill can meet with no opposition, the only question which can arise, will be on some of its particular provisions, as to the best mode of carrying its general principles into effect. On this point of the subject, we would recommend to you to support the adoption of the bill in its present form, as any inconvenience which may arise in particular districts, can, at any time, be removed after the law is in operation, when experience can point out to the legislature, the expediency of a different arrangement; but this we confide to your discretion, on the positive injunction, that the general system is not affected.

Fully confident of the patriotism of our fellow citizens throughout the State, that they are actuated by the same anxious solicitude for the public good, we doubt not but their Representatives and ours will meet at the next session, bringing with them, the rich deposit of the public sentiment, and, by a unanimous voice, establish Free Schools throughout the State; then will that glory which attaches itself to the purest benevolence, and to the highest acts of public virtue, rest on their heads, and the members of the Rhode Island Legislature, having thus before the close of the eighteenth century, provided for the full enjoyment of a right which forms so essential an article in the great system of social order, will be mentioned with high expressions of gratitude and honor, through the ages and generations which are yet to succeed. It is, nevertheless, the sense of the town, that, in case any particular alteration of the bill, to extend it to native Indians, or other people of color, or as it may respect any particular society, shall appear eligible, to the Representatives on hearing before the General Assembly, these instructions are not to be construed to militate against any such amendment."

In October following, the House of Representatives passed the bill into a law. The Senate postponed the matter until the next February session, (1800) when they concurred with the House. It met with great opposition in the General Assembly, and measures were soon put in motion to ensure its repeal, by which its fair operation was never felt. The end designed was accomplished, the act became unpopular, and was repealed in February 1803.

Ten days subsequent, the committee to whom was referred the subject of Free Schools, as established by the late act of the General Assembly, reported:

"1. That it will be expedient to open and establish through the year four Free Schools; one to be kept in Whipple Hall; one in the brick school-house; one in a new school-house, to be

built at the south end of the town; and one in a new school-house, to be built on the west side of the river.

2. That a committee or committees be appointed to build the new school-house, and that these houses ought to be of brick, and be built immediately, and that Whipple Hall ought to be repaired.

3. That until these houses can be built, the town council be requested to provide proper places for the schools, at the south end, and on the west side of the river.

4. That there ought to be four principal Masters appointed at a salary of five hundred dollars per annum each, and to be paid quarterly, and so many Ushers or Assistants as the town council shall find necessary, at such salaries as the council shall allow.

5. That so far as relates to expense, the town ought to be one school district, and that the town council be requested to decide accordingly.

6. That the town council ought to be empowered to appoint, and need require, to suspend or remove the Masters and Ushers, and that the council be requested immediately to make the necessary arrangements for carrying the system of Free Schools into complete execution and effect.

7. That a tax of four thousand dollars ought to be now ordered and assessed, and that the same and all other taxes hereafter imposed for like purposes, ought to be paid in money into the town treasury, and be exclusively appropriated to the erection of school-houses and the support of Free Schools."

The above report was received at the next meeting of the freemen, and they resolved to recommend to the town council all the main features of the report; leaving, however, the salaries of the Masters and Ushers to be fixed by the council. They fixed the salary of a Master at five hundred dollars per annum; that of an Usher at two hundred dollars per annum. The freemen voted to assess and collect a tax of six thousand dollars, and the town council ordered the town treasurer to collect certain moneys due on the sale of certain lands called the "Walker Lots;" and also to collect, by prosecution if necessary, certain moneys due the town from the Managers of the "Great Bridge Lottery," so called. All the above moneys were to be set apart and used exclusively for the purpose of carrying the system of free schools into successful operation.

The council also voted to proceed immediately to the preparation and erection of the school-houses. The freemen bought the "Whipple Hall," standing on the site now occupied by the Benefit Street Grammar School, and at an expense of some five hundred dollars fitted it up for a public school-house. They also bought the brick school-house still standing in Meeting street, and made the alterations and repairs necessary to fit it for a public school.

A new house was built in Transit street, on the lot to be occupied by the Transit street primary school-house; and another new house was built on the west side of the river, on a high hill near the present corner of Friendship and Claverick streets.

On the 26th of August, the freemen of the town appointed a school committee, who were invested with no powers, but were made merely advisory assistants of the council in all matters pertaining to the public schools.

The following gentlemen constituted the first school committee ever appointed in this town, viz: Jonathan Maxy, Enos Hitchcock, Stephen Gano, William Jones, James Burrill, John Howland, Jabez Bowen, David L. Barnes, Amos M. Atwell, John Carlisle.

On the 13th of October 1800, the town council and the school committee appointed President Maxy, Dr. Hitchcock, Joseph Jencks, and John Howland, a committee to frame rules and regulations for the government of the public schools, about to be opened in this town. It appears from a subsequent record, that some time previous to this, Dr. Enos Hitchcock and Tristram Burges, Esq., being about to visit Boston, were requested by the town council to visit the public schools of that city, and obtain, if possible, a copy of the rules and regulations of its public schools. Mr. Burges procured a copy of the rules and regulations of the Boston public schools, for which the town council voted to pay him *one dollar*, and gave him a vote of thanks.

On the 16th of October, the above committee presented the following report to the town council:

"The public schools being established for the general benefit of the community, all children of both sexes admissible by law, shall be received therein and faithfully instructed without preference or partiality.

The system of instruction shall be uniform in the several schools, and the pronunciation as near alike as possible, and to this end, it shall be the duty of the several instructors to have frequent intercourse with each other, and agree upon some measures for carrying this important article into effect.

The good morals of the youth, being a matter of the highest consequence, both to their own comfort, and to their progress in useful knowledge, they are strictly enjoined to avoid idleness and profaneness, falsehood and deceitfulness, and every other wicked and disgraceful practice; and to conduct themselves in a sober, orderly and decent manner, both in and out of school.

The principal part of the instruction will consist in teaching spelling, accenting and reading both prose and verse, with propriety and accuracy, and a general knowledge of English grammar and composition; also, writing a good hand, according to the most approved rules, and vulgar and decimal fractions, including tare and tret, fellowship, exchange, interest, &c.

The books to be used in carrying on the above instruction, are Alden's Spelling Book, 1st and 2d parts, the Young Ladies Accidence, by Caleb Bingham, the American Preceptor, Morse's Geography abridged, the Holy Bible in select portions, and such other books as shall hereafter be adopted and appointed by the committee. The book for teaching arithmetic shall be agreed on by the Masters.

As discipline and good government are absolutely necessary to improvement, it is indispensable, that the scholars pay a particular attention to the laws and regulations of the school.

If any scholar should prove disobedient and refractory, after all reasonable means have been used by the Master to bring him or her to order and a just sense of duty, such offender shall be suspended from any further attendance or instruction in any school in the town, until the next visitation of the committee.

That each scholar shall, after having entered a school, be punctual in his attendance at the appointed hour, and be as constant as possible in his daily attendance.

That excuse for absence shall be by a note from the parents or guardian of such scholar.

That monitors be appointed by the Masters of each school, to notice the absence or tardiness of the delinquent scholars, the list of whose names shall be preserved and exhibited to the committee at their next visitation.

Submitted by Enos Hitchcock, John Howland, Jonathan Mary, Joseph Jencks, committee."

The above report having been accepted, it was voted and resolved, that the rules therein recommended, be adopted for the regulation of the schools.

The council, before the schools were opened, made the following recommendations to the Masters of the schools, viz:

"That as far as possible they exclude corporeal punishment from the schools; and in particular, that they never inflict it on females.

That they inculcate upon the scholars the proprieties of good behavior during their absence from school.

That they consider themselves in the place of parents to the children under their care, and endeavor to convince them by their treatment, that they feel a parental affection for them.

That they never make dismissal from school, at an earlier hour than usual, a reward for attention or diligence, but endeavor to lead the children to consider being at school as a privilege, and dismissal from it as a punishment.

That they never authorize one scholar to inflict any corporeal punishment on another.

That they endeavor to impress the minds of their pupils with a sense of the Being and Providence of God, and the obligation they are under to love and reverence Him; their duty to their parents and masters; the beauty and excellence of truth, justice, and mutual love; tenderness to brute creatures; the happy tendency of self-government and obedience to the dictates of reason and religion; the observance of the Sabbath as a sacred institution; the duty which they owe their country, and the necessity of a strict obedience to its laws; and that they caution them against the prevailing vices."

These preliminary arrangements having been made, the four schools were opened on the last Monday in October, 1800. The most encouraging circumstances attended the opening of the schools. The number of scholars was greater than had been anticipated. They were all well filled with pupils, and the fourth district school, including the west part of the town, was soon so full that it became necessary to set off a part of it to the second district, in Meeting street. Still the school in the fourth district continued so large that the council requested Rev. James Wilson, the teacher of that school, to hire the vestry under the Beneficent Congregational Meeting House, that some of the children might be accommodated

there, until the second story of the new school-house could be finished for their reception.

At the end of the first quarter, a little less than three months from the commencement of the schools, the town council and school committee devoted two whole days to the examination of the schools. Separate reports were made concerning the progress of the several schools, and presented to the town council and school committee assembled; and they, "as a testimonial of their approbation, voted and resolved, that honorable mention be made on the record, of the good order displayed in the schools, and of the proficiency which the scholars appear to have made in the several branches of useful learning." At a meeting of the town council and the school committee, held a day or two after the examination, they passed a unanimous vote of thanks to the Masters and Assistants, for the unwearied attention they had given their respective schools, and ordered the town clerk to communicate the same to each one of the teachers. They also ordered the clerk to prepare "an account of the very satisfactory examination," and cause the same, together with the vote of thanks to the teachers, to be published in the newspapers of the town. This public manifestation of interest in the free schools, and of confidence in the teachers, gave a decided tone to the public feeling in favor of the schools and teachers.

The good character which the schools acquired during the first quarter, appears to have been sustained for several years. During this period they claimed a large share of public attention. Not only were the official guardians of the schools strictly attentive to their charge, but at quarterly examinations and at other times, men of influence generally, were accustomed to visit them frequently. The parents of the children belonging to the schools, manifested much concern for the welfare of the scholars, and evinced a marked respect for the teachers; and the quarterly examinations were occasions of interest to the whole community.

The beneficial tendency of these public manifestations of regard for the teachers, and of interest in the schools, was seen most clearly, when they began to be withheld. After some years, in consequence of the declining interest of the public in them, the schools became somewhat depreciated. Wanting that encouragement which frequent visiting, and other manifestations of regard impart, both teachers and scholars were less spirited in their efforts for improvement.

This decline of interest in the schools was perceived and attributed to its true cause. The people felt that the same influence that enlivened them at their commencement, alone could restore them to their former prosperous condition. Efforts were made to improve them. The revision of the school regulations, and the introduction of several new books were the results of these efforts and a new interest was felt, and its effect was apparent in the improved state of the schools.

From the revised regulations, we make the following extracts: 1

"The public schools are established for the general good of the community; and all children of both sexes, having attained the age of six years, shall be received therein, and faithfully instructed without preference or partiality.

The instruction shall be uniform, in all the schools, and shall consist of spelling, reading, the use of capital letters, and punctuation, writing, English grammar, and arithmetic.

The pronunciation shall be uniform in all the schools, and the standard shall be the critical Pronouncing Dictionary of John Walker.

The following books, and none other, shall be used in the several schools, viz: Alden's Spelling Book first and second parts; New Testament, American Preceptor, Murray's Sequel to the English Reader, Murray's Abridgement of English Grammar, and Daboll's Arithmetic.

Each scholar shall be punctual in attendance at the appointed hour, and as regular as possible in daily attendance, and all excuses for absence, shall be by note from the parent or guardian of the scholar.

It shall be the duty of the Preceptor to report at each quarterly visitation, the names of those scholars who have been grossly negligent in attending school, or inattentive to their studies."

It appears from the records, that in 1800, *four* schools were established, and *four* Masters appointed at the salary of \$500 each; four Ushers were also appointed at the salary of \$2.00 each. Early in the same year, an auxiliary school was established in the *fourth* district, and a teacher appointed at a salary of \$400 per annum, making the annual amount paid for tuition alone, \$3,200. This arrangement continued till 1812.

We learn from the best sources of information on this subject, that the number of scholars attending the public schools, during these twelve years, rarely, if ever exceeded 800. This is considered a very liberal estimate, and still the tuition alone of each scholar is \$4 00 per annum.

From 1812 to 1818, there were five schools. Five Masters at \$500 salary; also, five Ushers at a salary of \$200 each;—making the annual expenditure for tuition alone, \$3,500.

In the latter part of 1818, some efforts were made to revive the schools again.

In the month of August, 1818, the town council raised the salaries of the Ushers to \$250 per annum.

In the following year, the stone school-house now standing near the Summer street grammar school, was built one story high; the second story having been added since. In October 1819, the west part of the town was divided into two districts; the fourth retaining the old school-house, and the fifth occupying the new house in Pond street. This arrangement did not increase the number of schools, as the school in the second story of the old school-house, was removed into the new one.

From this time to 1824, the number of the schools and teachers continued unchanged, viz: Five separate school-houses; five Masters at a salary of \$500 per annum; five Ushers at a salary of \$250 per annum; making the sum paid for tuition annually, \$3,750.

In 1824, an additional teacher was appointed, at a salary of \$300 per annum, to take charge of a part of the scholars, in the first district school, removed into a separate room. This arrangement raised the expenditure for instruction alone to \$4,050 per annum, and the schools were conducted on this plan till 1828.

After this period, no important modification of the school system was made till the year 1840.

We have thus sketched a brief outline of the progress of the public schools to the year 1840; and we will here insert a table exhibiting the average number of pupils in each year, from the year 1819 to 1840, the annual amount of money paid for instruction, and the average amount paid for each scholar per annum:

Year.	Aver. No. during the year.	Amount paid for tuition.	Ann. expense for each scholar.
1819	830	\$3,750	\$4,51
1820	846	3,750	4,42
1821	798	3,750	4,71
1822	845	3,750	4,52
1823	812	3,750	4,61
1824	852	3,750	4,34
1825	806	4,050	5,02
1826	744	4,050	5,44
1827	886	4,050	4,46
1828	1000	4,500	4,50
1829	1260	4,100	4,05
1830	1205	5,300	4,40
1831	1127	5,700	5,06
1832	941	5,700	6,27
1833	1129	5,700	5,05
1834	1222	5,700	4,66
1835	1266	6,900	5,45
1836	1271	6,900	5,42
1837	1536	7,400	4,82
1838	1717	7,400.	4,31
1839	1740	7,400	4,18

In 1824, the system of public schools in Providence had attained to such a point of success as to attract the attention of the friends of education in Newport, as will appear from the following letter of Mr. Howland. It contains a more satisfactory account of the condition of the schools, and the progress of the system at this period, than can be gathered from any other source:

PROVIDENCE, September 20, 1824.

TO RICHARD K. RANDOLPH and DUTEE J. PEARCE, Esqrs.:

Gentlemen:—Your communication dated 16th instant was duly received, and the intelligence it affords that the good people of my native town, have set themselves seriously to work to establish public schools, will render a compliance with your request the greatest pleasure.

The preparatory measures towards establishing the system in this town, resulted from the provisions of an act of the General Assembly, passed in 1800, for the encouragement of public schools throughout the State. This act placed the power of commencing and carrying the system into effect, principally in the several town councils; and although the act of the State was repealed in less than two years after it had passed, yet the town never withdrew the powers confided by the town to the town council in the first instance, in conformity to the State law, being satisfied they could devise no better method. Before the system was completed, the town, on the request of the town council, appointed a school committee (at first consisting of twelve) to attend with them in the visitation of the schools, and whom the council uniformly notify to attend with them in any consultation on measures to be adopted relative to the schools.

The town was at first divided into four, at present into five school districts; two old school-houses were purchased of proprietors, and three new ones have been built, two of brick and one of stone. During the time the new houses were building and the old ones repairing, a sub-committee devised and reported the rules for the government of the schools, and designating the books to be used. The rules as first established are continued with little variation, but changes have been made in the books as new ones have appeared, better adapted. The appointment and removal of the Masters and Ushers remain solely with the town council, though in the appointment of a Master to fill a vacancy, (as there are generally several applicants) the school committee are convened with the council, and the qualifications of the candidates discussed.

Presuming these preliminary observations may come within the scope of your inquiries, I now proceed to answer as correctly as possible, the special interrogations:

1st. *Of how many pupils do the schools consist?* The average number in the winter season is about nine hundred, in summer eight hundred; the school-houses are calculated to accommodate two hundred each.

2d. *Are there one or more Masters to a school?* One Master and one Usher to a school.

3d. *At what age are pupils admitted, or at what age discharged?* The children are admitted at the age of six years, the time of continuance not limited. Before the establishment of the public schools, the means of education were very limited, and on their being opened, the scholars were of all ages between six years and twenty; there are now but few over fourteen years, mostly from six to twelve. Although the age for admission as a general rule, is six years, yet the preceptors receive some under that age, when they belong to a family from which older children attend; but when the number in a school is two hundred or more, which has frequently been the case, then all under six are excluded.

4th. *Are females admitted?* Females are admitted. The school-rooms have an aisle, lengthwise through the middle, the boys occupy one side, the girls the other; the floors rise from the side of the broad alley to the walls, and there is a desk and a seat for every two scholars; the size of the room 50 feet by 30.

5th. *Does the method of instruction differ from that practiced in ordinary schools?* The method of government and instruction differ materially from that practiced in schools before, or at the time the public schools were established. The old pedagogue system of the cow-skin and the ferule, is laid aside. The government partakes more of the paternal character; the boys have the appellation of masters, and the girls of misses; emulation is excited by promotion to a higher class, and by public commendation by the Preceptor, of particular instances of attention to order, or improvement. The upper class of boys are supposed to be in the character of young gentlemen, and the misses are addressed as young ladies. After all, the application of the general system of government depends much on the peculiar qualifications and address of the Preceptor; he is not addressed by the term *Master*, that is applied exclusively to the boys. The number of males exceed the number of females, probably about one-fifth through winter, but in the summer season they are nearly equal.

6th. *What are the branches taught?* This may be answered generally, by an extract from the first regulation, viz: "The principal part of the instruction will consist in learning spelling, accenting, and reading, both prose and verse, with propriety and accuracy, and a general knowl-

edge of English grammar and composition ; also, writing a good hand, according to the most approved rules, and arithmetic," &c.

7th. *What is the expense of each and all the free schools in Providence?* Five Masters at 500 dollars per year each, \$2500

Five Ushers at 250 dollars each, 1200

\$3750

To this may be added necessary repairs of school-houses, stove pipes, &c., and a few books furnished occasionally to poor children by the town council.

8th. *What are the results of the system?* As to the effect which the public schools have had on the state of society, the evidence must be circumstantial, as it is impossible to tell what would have been the case had they not been established ; but the circumstances are so numerous and coincident, that they appear to establish the fact beyond a doubt, that they have been highly beneficial. Many of our citizens who pay through the tax collector for their support, and who having no children of their own to instruct, care but little about the education of others ; but from their observation of the good effect of the schools in their own neighborhood, or in the town at large, are now among the most zealous for their support. You, gentlemen, were probably well acquainted with the late Marshal, E. K. Dexter, Esq., and his testimony with you will be important. At the time the public schools were first established, Mr. Dexter and his father, who paid a large tax, were two of their strongest opposers. Their principal argument was, that it was wrong to compel those who had been at the expense of their own education, and now have no children of their own to be benefited, to pay for the schooling of other people's children ; but before the death of the father, he was well satisfied with the result, and the Marshal, for ten or twelve years past, has been one of the firmest friends of the schools, and frequently declared that he owed the safety of his gardens and orchards to the public schools.

There are now many among our most active and valuable citizens, merchants, mechanics, manufacturers, and masters of ships, who were poor boys, without other means of instruction, and who owe their present standing, and in some instances large property, entirely to the education and manners acquired in these public schools.

Two schools on the Lancasterian plan, are now in operation in this town by individuals from abroad, without any support from the town. This is matter of experiment ; they are well spoken of, and I think will be useful for children who have been altogether without instruction. In these they can commence the first rudiments, and be prepared to take their places in the other schools to more advantage. A committee appointed by the town at April meeting, made a report (highly favorable to the plan) in June. They were continued, and probably will, at a future meeting, recommend one school on the plan of Lancaster, for the support of the town.

I have not at present, a moment's time to review what I have written, or to add any further details or remarks. With the best and most ardent wishes that the gentlemen who have begun the good work in Newport, may persevere in the good cause to the great benefit and everlasting honor of the place of my birth, I remain, your obedient servant,

JOHN HOWLAND.

In 1828, after the passage at the January session of the General Assembly, of the " Act to establish Public Schools" throughout the State, a vigorous attempt was made in the school committee, to reorganize the school system of the town, and place the schools in a condition of greater usefulness to all classes of the community. A sub-committee was appointed to take the whole subject into consideration, and to recommend such alteration and improvements as they might deem necessary. On the 22d of April, the committee submitted a report which was printed in a pamphlet form, and circulated throughout the town. This document was drawn up by President Wayland, and is valuable, not only for its able discussion of the principle of gradation, as applied to public schools, and as containing the outline of the system as now established, but as an embodiment of the views entertained at that date, by the most enlightened minds, of methods of instruction, and the motive powers to be resorted to in the school-room. It was published with the strongest recommendations, in the *Journal of Education*, for May, 1828, and in the *Teacher's Guide*, for July of the same year. The following is the report entire :

REPORT.

THE Sub-committee, to whom was referred the consideration of the present school system of the town of Providence, and who were directed to recommend such alterations and improvements as they might deem necessary, beg leave respectfully to report:—

That immediately after their appointment, a majority of them visited Boston, and were employed for several days in examining the most flourishing schools of that metropolis. The result of this examination will be incorporated in the following remarks. It may not, however, be improper to state, that the school system of that city appears, in most respects, a model most worthy of the imitation of every large town in our country. It is with the most lively gratitude, that your Committee acknowledge the kindness with which they were received, and the facilities which were given to their inquiries by his Hon. JOSIAH QUINCY, Mayor of the city, and various other gentlemen to whom they applied for information. They would especially record the names of Mr. Alderman Armstrong, Rev. Mr. Wisner, and Moses Grant, Esq., of the Primary School Committee.

Your Committee have also visited, pursuant to their directions, all the public schools of this town, and the excellent private school of Messrs. De Witt and Kingsbury.

Before going into detail upon the subject of the common schools in this town, your committee hope to be indulged in a few remarks, which may tend, in some degree, to illustrate the course which it has seemed their duty to recommend.

The principle which should mainly direct the appropriation of public money is evidently equity. In other words, money raised by a tax upon every individual, should be so distributed that every individual should have an opportunity of participating in the benefits of its expenditure. Or, to apply the principle to the present case, if money is contributed by every citizen for the purpose of education, a school system should be so devised, that every citizen should receive, not merely the general advantage of having his neighbors better instructed, but also an equitable share of that instruction which he assists to maintain. Now if this view of the subject be just, it will follow that there should be furnished a number of schools, sufficient to accommodate all who wish to avail themselves of their advantages. Every one sees the injustice of taxing the whole community to support one or two schools, to which not more than one-tenth part of the whole number of children could find admittance. The same injustice will evidently occur, if the number of scholars imposed upon a teacher be so great as to render his instructions of so little value that a large portion of the community is obliged to resort to private schools.

The same principle would dictate that there be established the various grades of schools suited to the wants of the public. If there be but one description of schools, it must either be so elevated that many of the parents cannot prepare their children to enter it, or else so elementary that none would avail themselves of its advantages for any considerable length of time, or else every thing would, of necessity, be so imperfectly taught that a very small portion would be benefited. In either case, but a small portion of the community would receive the benefit of that provision which all were taxed to support. The first was the case in Boston previous to the establishment of primary schools. The grammar schools admitted no one unless he could read in the Testament. But it was found by actual examination that a very great proportion of the poorer class were unable or unwilling to procure, at their own expense, this preparatory education for their children, and that thus many thousands were growing up in utter ignorance.

It may here be properly suggested, whether equity does not demand that the system of public education in this town should make provision for at least one school of a higher character—a school which should provide instruction in all that is necessary to a finished education. If it be said

that such a school would be of advantage only to the rich, it may be answered, as the rich contribute in an equal proportion to education, why should not they be entitled to a portion of the benefit? But it is far from being the case that such a school would be only for the rich. It would be as much a public school, as open to all, and as much under the government of the public as any other. But it would evidently be of most peculiar advantage to the middling classes, and the poor. Such an education as we propose, the rich man can give, and will give to his son, by sending him to private schools. But the man in moderate circumstances cannot afford to incur the heavy expenses of a first rate school, and if no such provision be made, the education of his children must be restricted to the ordinary acquisition of a little more than reading and writing. With such a school as we have contemplated, he would be enabled to give his child an education which would qualify him for distinction in any kind of business.

And lastly, the principles of equity to which we have alluded, would dictate that the public schools, of every description, should be well and skillfully taught. If this be not done, the result will be obvious. The funds by which they are supported, are contributed by the rich, and by the middling classes of society. If they be badly taught, the rich will derive no benefit from them. This, however, is a small matter, as they can afford to give something towards the education of the poor, and also to pay for the education of their own children elsewhere. It is otherwise with the citizen in middling circumstances. If a public school be badly taught, and he is sensible of the value of a good education, he also will send his children to a private school. To him this double expense, especially if his family be large, is a serious inconvenience; he is taxed to support schools of which he will not avail himself, and, in addition, pays as much for the education of his children as though he had contributed nothing. It must be evident that the true interest of every citizen of moderate circumstances, must be so to elevate the character of our public schools, that he need look nowhere else for as good instruction as his family may require. Although to accomplish this, he pays a somewhat heavier tax for public education, he will, in the end, be greatly the gainer.

Here, however, we are aware that another consideration will occur. It may be said, that, in the distribution of funds raised for public schools, perfect equity is not to be looked for nor desired—that this is a contribution from the rich for the benefit of the poor, and that they are sufficiently rewarded by the improved morals and intellectual condition of the poorer classes of the community. Now, granting all this to be so, we must remark that the spirit of the suggestion seems to us at variance with our republican institutions. It in reality belongs to the old world more than to the new. Why create such distinction between our fellow citizens? Why should one class of society be supposed to say to another, it is for our interest that you should have education, and we give it to you, but it shall be as useless as any thing which can bear the name, so useless that for ourselves and our families, we will have nothing to do with it? We hope no man amongst us would be willing to harbor such a thought, or utter such a sentiment.

But, as we said before, granting all this to be true, and that perfect equity in the distribution cannot be effected, as clearly it cannot, what then? Is not education a commodity which all classes of the community want? Why, then, should we not furnish it of such quality that all may enjoy it together. By furnishing a valuable course of Public Instruction, the rich will enjoy its advantages, and surely it cannot injure the middling classes and poor. Nor do we here look towards an impracticable result. Children of every class are seen in the Public Schools in Boston, and they are found there because, as in several instances, wealthy parents told your Committee the public were preferable to the private schools.

And here we may remark, that there can be no doubt of the effect of a single school of the highest character upon the discipline and improvements of all the other. Entrance to it would be conferred, as the reward of merit, upon the most deserving scholars of each Grammar School, and its requirements should always be an accurate knowledge of the branches

taught in these schools. It is needless to suggest that a thorough education in such a school as we propose, would be the most valuable reward which could be conferred upon diligence and good conduct. Of its value, both to the community and the scholar, we need mention only one fact. The regular course in the High School in Boston, occupies three years. Sixty or eighty boys enter it annually. But such is the demand for clerks from this school, though in such a city there are always abundant applications for such situations, that in no case did a greater number than eight or ten in a year complete the whole course.

If, then, we are not mistaken in these views, it is evident that public instruction should be provided in sufficient extent to meet the wants of the community. The course should embrace a series of instruction, from the simplest elements to the higher branches of knowledge, and the instruction in every department should be of the most valuable character. Let us then briefly inquire how far our present school system accomplishes these objects.

How far the provisions for education are proportioned to the magnitude of our population, it may not be possible, with perfect accuracy, to decide. Judging from the few facts in our possession, it would, however, seem probable that the public good would be promoted by considerably enlarging them. The schools now number on their books as many pupils as can receive advantage from the labors of the present instructors. Yet it will not, we presume, be denied that a very considerable portion of the children about our streets attend no school whatever.

It is stated from official documents, that there are in the State of New York, many portions of which are sparsely settled, one-fourth part of the whole population under the process of education. Taking one-fourth of the whole population, then, as the proportion which at any one time needs instruction, 4500 would be about the number to be educated in this town. Of these, suppose 2000 to be educated by private instruction, a number by far too great, if the public schools are such as to command the confidence of the community, and provision ought to be made for the education of 2500. The present provision, in the opinion of your Committee, is sufficient for but little more than 1000. If, in addition to these facts, it be considered that unless the course of instruction be such as to interest every class of society, it can be of material benefit to no class, and if it be so it must be much more extensive than at present, we think that the wisdom of considerably enlarging the means of education will be evident.

It would, therefore, seem proper that the school committee, joined with such persons as the Town Council may add, be empowered to increase the means of instruction from time to time, as the wants of the population may require. But it has appeared to your Committee that one part of this object may be accomplished immediately, and with very little additional expense, by establishing a sufficient number of primary schools, in different parts of the town. The effect of these will be to provide a grade of instruction as much needed by the public as any other, to elevate the character of the grammar schools, and to enable the teachers of these schools to devote their attention to a larger portion of those who are prepared for instruction in the more advanced branches of education. We have no doubt that by providing a suitable proportion of these schools, the number of scholars under public instruction would, in a short time, be doubled, and the convenience to the community be immeasurably increased.

This, however, leads us to remark upon the defect of the present system with respect to gradation of instruction. With the exception of two primary schools, lately commenced, our schools are all of one grade. That this arrangement is both unwise and unnecessarily expensive, is plainly to be seen. The teachers of the grammar schools are men, some of them men of families. They are, of course, employed at men's wages, which are more than three times the wages of females. Now in admitting scholars to their schools, there must be some previous education required, or none. If none be required, you would have a man receiving man's wages for teaching the simplest lessons, which could be taught better by a female, who could be employed at one-third the price. If you insist upon previous

education, many of the children of the poor will be kept out of school until they are so old as to be ashamed to learn.

The fact has been that, as generally happens in cases of this sort, a middle course has been adopted. Scholars before entering have been, by the regulations, required to be able to read. But from this law, (there being no provision for preparatory education,) the teachers have been obliged to relax, and the result has been that a large number of the scholars in every school, are scarcely able to read intelligibly. With this portion of his scholars, very much of the teacher's time is occupied, and the result of his labor upon either the more or less advanced, is much less than might otherwise be expected. But it is needless to enlarge upon this subject. Every one must see that economy would forbid the paying a man for teaching English grammar, arithmetic, and geography, and then employing him in teaching spelling lessons, and the first elements of reading.

These evils will at once be prevented by providing schools for teaching children from four to seven years of age, in the alphabet, spelling, reading, and the first elements of arithmetic, and by requiring that no scholar shall be admitted to the grammar school unless he be able to read in the Testament. The grammar schools can then be devoted to the acquisition of greater perfection in reading, and to the study of arithmetic, geography, English grammar, and penmanship.

If, in addition to these two grades of schools, a single school for the whole town be established, of a more elevated character, to enter which it shall be necessary to have been a proficient in all the studies of the grammar schools, and in which should be taught a more perfect and scientific knowledge of geography, book-keeping, arithmetic, algebra, geometry, navigation, moral and natural philosophy, natural history, the elements of political economy, and the Constitution of the United States, and the Latin and Greek languages, we think that our system of instruction would be such as to do honor to the public spirit of this commercial and manufacturing metropolis, but not at all beyond what is demanded by the advancing intelligence of the age. Whether a high school of somewhat the same character for girls, might not also be desirable and expedient, would be a matter for future consideration.

To the question, in what manner these several schools should be taught, that is, whether on the common or the monitorial system, your Committee have given considerable attention. The result of their observation and reflection is briefly this: They believe that for the primary schools, the monitorial system is decidedly preferable. The schools which they examined in Boston on this plan, were altogether superior to those upon the former plan. They beg leave here to introduce an extract from the report of a committee on this very subject, to the Boston general committee on primary schools. It may also be added, that no higher authority on such a question can any where be found.

"We have investigated the advantages derived from the monitorial system in the schools to which it has been applied, and consider the evidence perfectly satisfactory that they are certain and highly important. In addition to the relief this system affords to the teachers, by supplying them with assistance drawn from their own school, and without expense, and thereby enabling them to give more accurate attention to the duties reserved for themselves, and a more thorough supervision of the school, and thus to communicate instruction with more facility to a much greater number of pupils; it appears that the effects on the pupils themselves, are in the highest degree beneficial. The manifest indifference, or reluctance, which they exhibit in most of our schools on the common plan, the most material obstruction to education, is in a great measure removed, and, in its place, an animated emulation carries forward their progress with a rapidity unknown before the introduction of this system; and the constancy and variety of occupation imposed, is found by experience to create as great an interest in their minds as would be produced by any useless or mischievous sports in which they would otherwise be engaged; and, by debarring idleness, takes away all opportunity and desire for those faults for which incessant punishment is now found necessary, and thus becomes

the most efficient instrument of discipline, the greatest desideratum in our schools. This is not a novel and untried theory, but an experiment fairly made, and in a course of successful operation."

With these remarks, the observations of your Committee fully coincide; and, therefore, it is only necessary to add, that this system of instruction, in their opinion, should be preferred for the primary schools which are, or which may hereafter be established.

Your Committee have reflected deliberately upon the question, what system of instruction should be recommended for the grammar schools now existing, or whether any alteration be necessary. It may here be proper to remark, that your Committee believe that the present instructors have done every thing in their power to carry forward the course of education committed to their charge, and have richly merited the thanks of the community. But, from the remarks which have been made, it will be evident that they have labored under many and peculiar embarrassments. A large portion of their pupils are occupied in the simplest elements. They are mere children. They occupy the teacher's time unprofitably to themselves and the rest of the school, and hence the instruction to them and the older scholars is far less valuable than it would be under a different arrangement. Of this fact the teachers themselves are aware, and they sincerely regret it.

But, while your Committee, are convinced of the benefit which the schools, as they now exist, have conferred upon the public, they have seriously deliberated whether they might not be greatly improved by the introduction of the monitorial system. Some of the considerations which have had effect on their minds, are these:

The beneficial effects of the monitorial system on the primary schools, have been already alluded to; but if such are the results upon children of from 4 to 7 years of age, why should they not be the same upon those of from 7 to 13 or 14? If children of 5, 6, and 7 years of age can teach each other, why should not children of 14, 13, or 12? But it is said a child cannot teach as well as a master. That, all things being equal, he could not, may be granted. But such is not the case, in fact. If a master could spend ten minutes with a child that was learning to spell, he might teach it better than a monitor but little older than itself; but if the time of the master is so occupied that he can spend but one minute upon this child, and the monitor can spend ten, we think there will be but little doubt under whose tuition the child can learn most.

But again, in teaching elements, we are far from being certain that, under proper supervision, the child may not be the best instructor. Children who associate with children, learn to talk much faster than those who associate with adults; and we are not sure that the principles which govern in the one case would not govern in the other.

But, waiving this question, and granting that if a teacher were limited to 20 or 30 pupils, he would teach better by personal instruction than upon the monitorial system, what has this decision to do with the case? Are we prepared to establish such schools? Are there any where such public schools? The plain fact is, that we must construct a system upon the supposition that there will be from 150 to 200 scholars to a teacher, or to a teacher and an assistant. Now for such schools as these, we are inclined to believe that the monitorial system is preferable. So far as our observation has gone, we frankly declare that the proficiency of scholars, under the same circumstances in other respects, when taught under the monitorial system, has been decidedly superior to that of those taught upon the common system. On this subject, however, our fellow citizens have the opportunity of judging for themselves. The school of Messrs. Dewitt and Kingsbury is, at stated times, open to the public; and we are happy to add, that we have seen no institution which presents a more interesting and pleasing exhibition of skillful and successful teaching.

But, although these have been the views of your Committee, they are far from recommending that the monitorial system be at once adopted in all our grammar schools. They are aware of the uncertainty of theory, and that many of the circumstances necessary to success in any particular

place, may have been overlooked. They, however, feel fully justified in recommending that one of the public schools be so far altered as to be established upon the monitorial system, and that thus a fair trial, open to the inspection of the public, may be made. The truth of the question can thus be easily settled, by allowing every one to judge for himself. The expense will be light, and the advantage which is hoped for, is most important.

With regard to the improvement of the grammar schools, on the present system, your Committee have but little to remark. Many of the most necessary improvements would certainly flow from the establishment of primary schools, and could not be carried into effect without it. Others will necessarily arise from a more punctual superintendence on the part of the committee. The following, however, might, if it were thought best, be adopted immediately:

The number of absences is at present very great; probably amounting in general to about one-fourth of the whole number of scholars belonging to the school. This might be diminished by keeping a regular absence list every day, and reporting it to the committee at their visitation.

Benefits would result, in the opinion of your Committee, from introducing into the schools some system of rewards, which should appeal continually to the emulation of the pupils. This may be arranged in a variety of ways, either of which would accomplish the same purpose, if it applied invariably, and at all times, to every individual. Human beings may be governed by an appeal to their love of character, or to their fears. We prefer the former, as more kind and more successful.

As to the manner in which a high school should be conducted, we will not here hazard any opinion. The decision on this subject will depend so much upon the branches to be taught, that until the character of the school be permanently settled, any opinion would be manifestly fruitless.

The books at present used in the schools, are, in the opinion of your Committee, altogether above the range of thought of the pupils. Works of a narrative character would be better understood, would be more interesting, and would, of course, teach the pupil to read with more taste and judgment. The boy who pores in utter disgust over the book which he reads in school, will hasten home to read with avidity his story book. The true wisdom would then be to introduce the story book into school, and thus render his place of education the place of his amusement.

It may be mentioned that proper story books are now published, that not only amuse children, but afford the best sort of instruction, and make the most lasting impressions.

Nevertheless, as this subject is one in which time and judgment are necessary for a selection, and as a change of this sort, through all the schools, would be productive of considerable additional expense, your Committee would recommend that no change at present be made in books, excepting only the arithmetic. If a school, by way of experiment, be established on the monitorial plan, various school books can be tried there, and, after a fair opportunity of testing the merits of several, those can be selected which seem best adapted to accomplish the purposes of education. Your Committee are, however, of opinion that it would be expedient to introduce the system of arithmetic published by Mr. Smith, into all the public grammar schools, and also that all the scholars in arithmetic be taught by classes, and not individually, as is now the prevalent mode.

In closing this Report, your Committee feel obliged to assure their fellow citizens that it is utterly in vain to hope for a valuable course of public instruction, without a thorough and active system of supervision on the part of the community. Unless the schools be visited frequently, and examined thoroughly, and unless the school committees determine to give to this subject all the attention, and reflection, and labor necessary to carry the system of education to as great a degree of perfection as the case admits, every thing will be fruitless. Without this, every plan of education will fail, and with it almost any may be made to succeed. If a sufficient number of gentlemen can be found, who will devote to the interests of the rising generation a half day every month, and who will so combine their labors as to produce the effect of a particular and general supervision, all

that the most benevolent could wish can be accomplished. If such men cannot be found, nothing of value will ever be done.

It is therefore recommended, that the school committee, to be hereafter chosen, be divided into two committees, to be denominated the primary school committee, and the grammar school committee. That both of these be regularly organized, by choosing a chairman and secretary, and that they adopt such rules as shall insure the visiting of every school by one member of the committee at least once a month; and that each general committee meet once in three months, to consider the condition of the schools in general, and of each one in particular; and that to them and to the Town Council, the whole business of the public education be committed.

2d. That primary schools, for the instruction of children from 4 to 7 years of age, be established in various parts of the town, under the superintendence and direction of the primary school committee.

3d. That one of the common schools be immediately established on the monitorial system*, and that the committee authorized to carry this resolution into effect, be also authorized to introduce into it such books, and make for it such regulations for the time being as they may deem proper.

4. That a public high school be established, in which shall be taught all the branches necessary to a useful, mercantile, and classical education.

All of which is respectfully submitted.

F. Wayland, Jr., William T. Grinnell, Thomas T. Waterman.

Providence, April 22, 1828.

NOTE.—The expense of teaching 7,044 pupils in Boston, 1826, in public schools, was \$54,417. Of teaching 3,392 in private schools, \$97,305.

'National wealth proceeds chiefly from activity of mind, and must, therefore, be proportioned to the extent and universality of its development. It appears by the statement of Baron Dupin, that in some parts of France, those who are educated are 1-10th; in others, 1-20th; in others, only 1-229th of the whole population; and that the national revenue from these districts is nearly in corresponding ratios.'—*Report of the Managers of the School Society in the City of New York.*

This able document, and the more direct and vigorous supervision of the schools, provided for in the school law of 1828, was followed by several important changes, and prepared the way for others. Previous to 1828, the school committees were appointed merely to advise with the Town Council; by the act of that year, the schools were placed under their exclusive control. Up to that time, children of all ages were gathered into the same school-room, and received instruction in all the branches taught therein.

The town meeting for the purpose of acting under the new school law, was held on the second day of June, 1828. It was voted that the committee should consist of twenty-one persons. Five were chosen on that day, and the remaining sixteen were chosen at a subsequent meeting, the first five having, in compliance with a vote of the town, nominated those whom they considered suitable persons to compose the school committee.

One of the first acts of the committee was the establishment of primary schools in all the districts; thus separating the small scholars from the larger, and making better provision for the instruction of each division.

The school regulations were again revised, and some changes made in the books and studies of the schools. The following extracts from the revised regulations will exhibit these changes, viz:

"The branches taught in the primary schools, shall be reading and spelling, and the books used for instruction therein, shall be the following, and no other, viz:

* A monitorial school was established in one of the writing schools in 1828, to test its efficiency, but it was abandoned in a few years.

Union No. 1, 2, 3, and the New Testament. Children of four years of age, and upward may attend the primary schools.

The branches taught in the grammar schools shall be spelling, reading, the use of capital letters and punctuation, writing, and arithmetic, rudiments of book-keeping, English grammar, geography, and epistolary composition; and the books used shall be the following, and no other, viz: Union No. 3, 4, 5, American first class book, Smith's arithmetic, Murray's abridgement of English grammar, and Woodbridge's small geography."

The primary schools were open to children of four years old and upward, who might continue till they were seven or eight years of age, and then, if qualified, might be transferred to the grammar school. At first, the primary schools were taught by one female, who had the charge of from 60 to 80 pupils. Soon, however, it became necessary to employ an assistant in each school.

The salaries of these teachers were fixed at \$175 for the preceptress, and \$100 for the assistants per annum.

The salary of a master was at this time \$500 per annum; that of an usher, \$250 per annum.

Previous to this time, no special provision had been made for the children of the colored population. A few of them had attended the public schools already established; but it was found that the wants of this class could be better supplied by the establishment of separate schools. In 1828, a school was established, with one male teacher, on a salary of \$400 per annum.

The schools were somewhat improved by the establishment of a primary and a colored school.

In 1825, the salary of masters was raised to \$600; that of an usher to \$300 per annum; that of a preceptress of a primary school to \$200; that of an assistant in a primary to \$125; and that of master of the colored school to \$450 per annum.

In 1836, female assistants were for the first time employed in the grammar schools; the ushers were not at once removed, but whenever vacancies occurred in the places of ushers, they were filled by the appointment of two female assistants, at a salary of \$175 per annum.

In the course of a year or two, all the ushers having resigned, female assistants were employed in all the grammar schools of the city. About this time, several changes in the books in the schools were made, viz: Emerson's arithmetics, Gould Brown's grammar, Field's geography and atlas, and the National Reader, were introduced into the grammar schools, and Emerson's First Part, and the American Popular Lessons were introduced into the primary schools.

In August, 1835, a special effort was made in the school committee, to improve the character and increase the number of the schools under their care. It was urged by some of the members of that body, that the establishment of a high school, in which the older and more advanced boys might pursue the higher branches of an English education, would tend to improve the grammar schools. It was argued that the removal of these pupils from the grammar schools would allow the masters to devote their attention to the mass of their scholars, instead of to a few already advanced beyond the common studies, and engaged in pursuing the higher branches. It was also argued that the establishment of a high school would afford a healthful stimulus to the boys in the grammar schools, and urge them onward in their studies, in order that they might become qualified for admission to such a school.

The subject was referred to a special committee, with instructions to examine into the expediency of having a "Free High School" established, and to report the result of their examination. This committee presented a report, in the form of a series of resolutions, which were adopted by a vote of two-thirds of the school committee. Among these resolutions was the following: "That it is highly desirable and expedient that a high school should be established in this city, for the instruction of young men in the higher branches of a good English education; and that said high school be established by this committee, should a provision for the same be made by the city government."

And, "That in the opinion of this committee, the expense of instruction in said high school need not exceed the sum of \$2500 per annum.

In the City Council, the subject introduced by these resolutions was discussed at some length, and finally a resolution was passed by both bodies, declaring that "it is not expedient at this time to establish a high school."

The City Council, however, requested the school committee to report to them on the expediency of establishing a grammar school in the Fourth Ward. The school committee recommended the establishment of such a school, but the City Council did not take any final action on the subject, as the members from the different wards declared that the buildings in which the schools were kept were so unfit for the purpose, that new school-houses were as much needed in all the wards, as in the fourth.

In the latter part of 1836, a movement was made in the City Council, to petition the General Assembly for the passage of an act requiring the school committee to be elected (with other municipal officers,) at ward meetings. Fortunately, this attempt to change the mode of electing that body was not successful. The present mode is far the best. It is now one of the first duties of the City Council, after its annual organization, to decide in whose hands the management of the school department shall be placed for the municipal year upon which they are just entering. In calm deliberation, they can select, for the performance of the arduous duties of the school committee, men of intelligence and sound judgment, who feel a deep interest in the schools, and who will be ready and willing to devote time and labor to promote their success, and insure their usefulness.

Early in the year 1837, the subject of re-organizing the school system was again introduced to the City Council, by a memorial from the "Providence Association of Mechanics and Manufacturers." To this association belongs the honor of having presented to the General Assembly, in 1799, a petition, the *first* document ever laid before that body on the subject of public education, praying for the establishment of "Free Schools" throughout the State. At this time, the association, true to its original spirit, addressed the following memorial and resolutions to the City Council:

"To the City Council of the City of Providence:

The undersigned, in behalf of the Providence Association of Mechanics and Manufacturers, respectfully represent: That

At a meeting of the Association, held on Monday evening, January 30, 1837, the accompanying resolutions were unanimously adopted:

Resolved, That no subject can be of more importance to the inhabitants of this city, than the education of the rising generation.

Resolved, That as the members of this Association were the pioneers in the establishment of the public schools, they manifested a most laudable zeal on that subject.

Resolved, That the public schools of this city come far short of the wants of the community, and are much inferior in their character to the public schools in the neighboring cities.

Resolved, That the public schools can and ought to be made equal to the private schools, so far as relates to the common branches now taught.

Resolved, That two of the greatest evils now existing, as respects public school instruction, are the great number of scholars in each school, and the small salaries paid to the teachers.

Resolved, That an increased number of public schools ought to be established in this city as soon as practicable.

Resolved, That a committee be appointed to draft a memorial to the City Council, on the subject of public schools, in conformity with the recommendation of the Select Committee, to report at an adjourned meeting, to be held on Saturday evening next."

In accordance with said resolutions, the following memorial was reported and approved at the adjourned meeting, and directed to be signed by the President and Secretary, and presented to the City Council.

Your memorialists have long considered that public schools, as at present conducted in this city, are wholly inadequate to the wants of the community, and fall far short of what might be expected from its present opulence. It is the opinion of this Association, that unless a more liberal system of public education is pursued, the children of the poorer classes must grow up in comparative ignorance; and that the laxity of morals, and loss of an honest pride in their own capacities, which would result from this state of things, would more than outweigh the increased expense which would be necessary to arrest it.

Your memorialists have been struck with one fact, to which they would respectfully solicit particular attention. It has been argued by some, (and perhaps the argument has attracted the consideration of your honorable body,) that the instruction of youth in the public schools, is a heavy tax upon the middling classes, without an adequate return, as they do not participate in the benefit of this public instruction. This argument, which is evidently weighty in the present condition of these schools, would be destroyed if they were raised to the condition desired by your memorialists. Why is it that the middling classes do not become participants in this instruction? There is evidently but one reason. They perceive that the crowded state of the schools alone, would prevent proper attention to the pupil; and they are aware that with the small sum which the instructors receive, it is difficult to procure and retain the services of competent persons to fill the station. But let the schools be made so numerous that the scholars may receive as much attention as they do in the private schools, and let the salaries be so large as to induce men of equal ability to take charge of them, and that which is now considered as a tax, would then be viewed as an alleviation of one of the heaviest burdens put upon the middling classes.

Your honorable body have, no doubt, in the consideration which you have given this subject, perceived how far we are behind our neighboring cities in this particular. Whilst they are constantly aiming at perfection in their free school system, we have been at a stand, or retrograding. To us, this is a matter of serious concern, inasmuch as in proportion to our inferiority in this particular, we are liable to become inferior in every other matter which requires intelligence industry, and enterprise

In evidence of these statements, it is found that the number attending public schools in this city, in 1836, was	1456
Private schools,	3235
Attending no school,	1604
Amount actually paid for public schools from June 1835, to June 1836,	
by the City,	\$5936 34
" " State,	1524 65
	<hr/>
	\$7461 99
Amount paid for private school instruction, over	\$20,000
Number attending public schools in Boston, in 1836,	8,847
" " private "	4,000
Amount paid for public schools,	\$88,000
" " " private do.	\$100,000

There are about 50 per cent more attending private school instruction than public, in this city; while in Boston, ~~three-fifths~~ of the whole number, 12,848, are attending the public schools. Boston, containing a population of about 80,000, pays \$88,000; and Providence, whose population is about 20,000, pays \$7,461. Should Providence pay \$22,000, instead of the sum above stated, her public schools might then be equal in standing, and perhaps nearly adequate to the actual wants of the community.

To remedy the defect in our present system, your memorialists would suggest that a grade of schools be established between the primary and writing schools, for reading, writing, and arithmetic only, the design of which is to give a thorough instruction in these branches to those children whose parents need their services at as early an age as twelve or thirteen years, and who, under the present arrangement, are compelled to leave school with a very superficial knowledge of those branches which are so necessary for obtaining a livelihood in any business. It must be obvious, that without a thorough knowledge of reading, writing, and arithmetic, the purposes of education are not, in any important degree, answered. And they would further suggest, that in addition to grammar and geography, now taught in the writing schools, such of the higher branches should be added as might be deemed most useful.

To effect an essential reform in our public school system, great expense must necessarily be incurred; and your memorialists, who represent a large portion of the heads of families of the city, would meet this increased expense with hearty encouragement. They need but the assurance that the schools shall be adequate to the purposes of education, to stimulate them to unremitting efforts for their support and maintenance; and they feel confident that they would be met with corresponding efforts on the part of the inhabitants of the city generally.

Your memorialists are convinced that the present is the time to commence this work of reform. The amount which will be received from the Government, and devoted to education, will considerably alleviate the expense in the outset; and the inhabitants of the city are now so well convinced of the necessity of effort, that any appropriations for this object would no doubt meet with their approbation.

SAMUEL TIMOLEY, Jr., Secretary.

GEORGE BAKER, President.

This excellent memorial, setting forth in strong terms the true features of the case, was received by the City Council with marked respect. It was referred for examination to a committee, who were instructed to report, at

the next meeting, a plan for such improvement in the system of public school education in this city as they might deem expedient.

This committee reported a plan for the improvement of the schools, but its provisions were not satisfactory to the Common Council, and it was laid upon the table.

Another plan of a school system for the city was presented to the Council. An outline of this plan is here given, viz :

12 Primary schools. 8 Intermediate schools. 4 Upper schools.

According to the explanations given of this plan, providing for *twenty-four* public schools, the primary schools were to occupy the same place in the system as our primary schools do ; and the "intermediate schools" were to rank with our grammar schools ; and the "upper schools" were in fact to be small high schools. A bill, with the salaries of all the teachers agreed upon, was adopted by the Common Council, and sent to the Board of Aldermen for concurrence.

In that body, the number of schools was diminished to *twenty*, and all the salaries reduced about *ten per cent.*, and the bill, thus amended, was returned to the Common Council. That body voted, by a large majority, not to concur in the amendments made by the Board of Aldermen. Long debates on the subject ensued in both Boards, and the School Question, as it was called, was discussed from time to time at adjourned meetings of the City Council. The school bill was sent to and from each of these bodies several times, with sundry amendments made in each Board. These amendments rather increased than diminished the difference of opinion on the questions in debate. At last, the plan was sent from the Board of Aldermen to the Common Council, as follows, viz :

10 Primary schools. 6 Intermediate schools. 2 Upper schools ; and 2 schools for colored children.

This was by no means satisfactory to the Common Council, and a large majority voted against concurrence. During this state of things, the municipal year of 1836-'37 closed.

The election of the Board of Aldermen and the Common Council, for the ensuing year, was conducted to some extent with reference to the School Question, and a large majority of the new City Council was in favor of an entire re-organization of the public schools.

Within one month from the time of the organization of the City Government, for the year 1837-'38, a new committee was appointed, composed of members of both Boards of the City Council. This committee held several meetings, and in August were "empowered by the City Council to raise a sub-committee. to visit the schools in Boston, Salem, Lowell, and New Bedford." This sub-committee visited the public schools in the above named places, and made an extended report, giving an outline of the school systems established in these several cities.

This report embodied a great variety of important information, showing how ample were the provisions for public education in other cities. It also gave some general estimates of the annual expenses of their respective school systems.

The committee to whom this report was presented, laid it before the City Council, in connection with the following report, containing a plan for the re-organization of the schools :

The Committee appointed to take into consideration the expediency of a new organization of the Public Schools, beg leave to report :

That the important subject presented to the consideration of your Committee, has ever been one of great and constant interest. In no former period of our history, has it excited more universal attention than at the present time. In this country, such has been the interest felt in the cause of education, that in aid of individual efforts, there have been legislative enactments establishing public schools.

The true wealth of a community should always be deemed to be the mind and intelligence of its children. Other treasures are as dross compared with this. By means of the public schools, the poor boy of to-day, the orphan perhaps, may become the man of influence of to-morrow, and what legacy so good, so fraught with lasting benefits, as education !

Our public schools should be sustained, if sustained at all, by a liberal policy. Neither the

indigent nor the sick have higher claims upon us than the ignorant. On a subject of such vital importance to this community, may we not reasonably indulge the hope, that it will yet become the ambition of its citizens to emulate each other in the good work?

The system of public instruction in this country, generally commences at the age of four years. Whether it ought not to begin at an earlier period, is a question which has been more or less discussed. Certain it is, that the earliest moment should be seized for imparting moral and intellectual culture to the infant mind. Experiments which have been made, show that instruction may be given at an age much earlier than that recognized for the admission of children into our public schools. Whether it would be an improvement in the system of instruction adopted in this city, to create a certain number of infant schools, is a consideration worthy of public attention. The free operation of our schools is doubtless impeded, and the instruction of the pupils greatly restricted, in consequence of the number of those who are continually entering the writing schools, with but a partial knowledge of the first rudiments. If infant schools, for the benefit of children from the age of three to five years, were established, a positive advantage would be gained to the primary and writing schools. Many of us have spent an occasional hour in an infant school. In those cradles of learning, the eye views nothing that is depraved; the ear is there unassailed by the language of impiety; a universal glow of pleasure is depicted on every countenance. Children are there made happy, because they are instructed to be good. Into such schools are introduced children of the tenderest age, who become at once the recipients of kindness, and who are led along by gentle steps to the portals of knowledge.

To have good schools, it is necessary they be provided with good teachers. We fear the office of teacher will never attain to that rank in society which it ought, until it is rewarded by the best salaries, in order that it may be coveted by the best talents. For the purpose of improving their pecuniary condition, educated men will ever be ready to abandon a calling which subjects them to severe duties, without an adequate reward. Pay to teachers something more than the means of a bare subsistence for their labors, and their services will be secured, their ambition stimulated, and your schools improved.

Every thing connected with education, should be made attractive to the child. The school-house, to which he is accustomed to go, should be such as to harmonize with the nature of his mind. In its exterior or interior aspect, it should never present a repulsive character. Instead of being unsightly and unclean, it should be the reverse. Consecrate the spot where your children are to spend so many hours of their existence, to good order, beauty of arrangement, and general neatness, and they will be grateful for the attention bestowed, and will be seen resorting there for pastime as well as for study.

In the opinion of your committee, it will be found eminently useful to establish a superintendent of the public schools. In the plan of instruction herewith submitted for consideration, such an officer is incorporated. It must be obvious to every one, that an individual well qualified for such a station, might carefully survey the whole ground, and understand from time to time its actual condition. It should be the duty of such an officer, to have a knowledge of all the children in the city, especially those of the poorer classes. It would be within the sphere of his influence, to lead the minds of parents and guardians to a more comprehensive sense of their duty. It should be his province to confer with the teachers, and to submit to the school committee a quarterly report, exhibiting the condition of the schools, and of all such matters relating to the general subject, as its importance would suggest. Create such an officer, with a salary sufficient to enable him to devote his whole time to the duties of his office, and much will have been done towards sustaining the character of the plan of instruction which may be adopted.

In conclusion, the committee offer the following resolutions:

First. That it is expedient that the number of schools in this city be increased to seventeen, not including the schools for children of color.

Second. That it is expedient that said schools be of the following descriptions, viz:

One high school, six grammar and writing schools, ten primary schools.

Third. That in the opinion of the City Council, no child ought to be admitted into the primary schools at a less age than four years; into the grammar and writing schools at a less age than seven years; nor into the high school at a less age than twelve years, unless by special permission of the school committee.

Fourth. That in the opinion of the City Council, no pupil ought to remain in the high school longer than three years, unless by special permission of the school committee, and in no case unless the same is not full.

Fifth. That in the opinion of the City Council, the principal of the high school should be paid one thousand dollars per annum; the assistant teachers seven hundred and fifty dollars per annum; the masters of the grammar and writing schools, eight hundred dollars per annum; two assistant female teachers, two hundred dollars per annum; the principals of the primary schools, two hundred and fifty dollars per annum; the assistant teachers one hundred and seventy-five dollars per annum.

Sixth. That in the opinion of the City Council, it is expedient to establish a superintendent of the public schools.

Seventh. That in the opinion of the City Council, the superintendent of the public schools, should be paid a salary of eight hundred dollars per annum.

Eighth. That the high school should be instituted for the purpose of fitting young men for college, and for perfecting those who are not intended for a collegiate course of study, in the branches or a good English education.

Ninth. That it is expedient that the high school shall be open for candidates from all the schools in the city, once a year; viz: on the next succeeding the exhibition of the schools in ; and that for admission into the high school, candidates from the public schools shall have preference over all others.

All of which is respectfully submitted,

J. L. HUGHES, STEPHEN T. OLNEY, HENRY ANTHONY, AMHERST EVERETT, SETH PADLEFORD, JAMES E. BUTTS,	}	Committee.
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September 25, 1837.

The whole subject introduced by this report, was under frequent discussion in the City Council, for several months. There was a strong and active opposition to a thorough re-organization of the school system, both in the City Council and out of it. Many expedients for defeating the passage of any bill making liberal provisions for public education, were employed. The progress of the movement was slow, for it had now become apparent that no *partial* reform of the school system could take place. The advocates of a new organization insisted on a radical change in the whole system. They asked for a new classification of schools, into primary and grammar schools, and a high school. They likewise urged the necessity of new plans for the instruction and supervision of the schools. Elaborate arguments were adduced, to show that it would be more economical for the city to make liberal provisions for very good public schools, than to continue to expend a small sum for very poor schools.

At length, the subject was referred to a new joint committee, with instructions to draft an "Ordinance in relation to Public Schools," and to present it to the City Council.

This committee examined with great care the various plans for the organization of public schools that had been presented in the course of the protracted examinations and discussions of the whole subject. Having formed comprehensive views of the wants of the city in regard to common education, they drew up and submitted to the City Council a very able paper, entitled "A Bill providing for a New Organization and the Future Government of the Public Schools in the city of Providence." This bill exhibited a beautiful conception of a system of schools for public instruction, embracing plans for their classification, instruction, government, and supervision. The City Council, meeting by adjournment, spent several successive evenings in earnest discussion of the various provisions of this bill, which was amended, abridged, and finally adopted in the following form:

"AN ORDINANCE IN RELATION TO PUBLIC SCHOOLS.

SECTION 1. Be it ordained by the City Council of the city of Providence, that from and after the 7th day of September, A. D. 1838, the number of public schools in said city shall be seventeen; (not including schools for colored children,) and that said schools shall be of the following description, to wit: one high school, six grammar and writing schools, ten primary schools. And that free instruction shall be therein given to the children of all the inhabitants of said city who may see fit to avail themselves thereof; subject only to the rules and regulations hereinafter contained and provided for.

SEC. 2. That each primary school shall be under the care of a principal, and one assistant teacher, and the rudiments of an English education shall be taught therein. That each grammar and writing school shall be under the care of a master, and at least two female assistant teachers, or one male assistant teacher, at the discretion of the school committee; and the ordinary branches of an English education shall be taught therein. That the high school shall be under the care of a preceptor, and one or more assistant teachers, and thorough instruction shall be given therein in all the branches of a good English education; and instruction shall also be given therein to all the pupils whose parents or guardians may desire it, in all the preparatory branches of a classical education.

SEC. 3. The high school shall not at any time contain more than two hundred pupils; of which number not more than one hundred shall be females, except when the number of male

pupils shall be less than one hundred; in which case, an additional number of females may be admitted, until the school shall be filled, under such conditions as the school committee may prescribe.

Sec. 4. That no child who shall not have attained the age of four years, shall be admitted as a pupil into a primary school.

That no child who shall not have attained the age of seven years, shall be admitted as a pupil into a grammar and writing school, nor unless qualified immediately to enter upon the course of studies pursued therein.

That no child who shall not have attained the age of twelve years, shall be admitted as a pupil into the high school, nor unless qualified immediately to enter upon the course of studies pursued therein. That no pupil shall remain in the high school more than three years.

No child who shall not have attended a grammar and writing school for at least three years, shall be admitted to the high school when there is a sufficient number of candidates in the grammar and writing schools qualified for admission therein. But whenever there shall not be a sufficient number of such candidates, any child over the age of twelve years, may, if qualified, be admitted for such time as the school committee may determine.

Sec. 5. That the school committee be, and they are hereby authorized and requested to appoint annually a Superintendent of the public schools, who shall perform such duties in relation to the public schools as said committee may from time to time prescribe. Said Superintendent to be subject to removal at any time by the school committee, in case of inability or mismanagement.

Sec. 6. That there shall be a public exhibition in the last week of each school year, in some place to be designated by the school committee, by so many pupils of the highest class of each of the grammar and writing schools as may be selected, in such manner as the school committee shall prescribe. There shall also be an annual public exhibition by the graduating class, and such other pupils of the high school as may be selected by the school committee, or under their direction; which exhibition shall take place on the Monday next preceding the first Wednesday in September.

Sec. 7. That the first regular term of all the schools in each school year, shall commence on the Monday next succeeding the second Wednesday in September.

Sec. 8. That there shall be two public schools maintained exclusively for the instruction of colored children; each of which shall be under the care of a principal, and also of an assistant teacher, whenever, in the opinion of the school committee, the services of such assistant may be necessary; and that free instruction shall be therein given in the ordinary branches of an English education, to the children of all the colored inhabitants of the city who may see fit to avail themselves thereof, subject only to the rules and regulations herein contained and provided for.

Sec. 9. That the following annual salaries shall be paid to the Superintendent and instructors of the schools, respectively, in equal quarterly payments, to wit:

To the Superintendent, twelve hundred and fifty dollars.

To the preceptor of the high school, twelve hundred and fifty dollars.

To each male assistant teacher of the high school, seven hundred and fifty dollars.

To each female assistant teacher of the high school, five hundred dollars.

To each master of a grammar and writing school, eight hundred dollars.

To each male assistant teacher of a grammar and writing school, four hundred dollars.

To each female assistant teacher of a grammar and writing school, two hundred and twenty-five dollars.

To each principal of a primary school, two hundred and fifty dollars.

To each assistant teacher of a primary school, two hundred dollars.

To each male principal of a school for colored children, five hundred dollars.

To each female principal of a school for colored children, two hundred dollars.

To each male assistant teacher of a school for colored children, two hundred and fifty dollars.

To each female assistant teacher of a school for colored children, one hundred and fifty dollars.

Sec. 10. That all moneys appropriated for the support of the public schools, shall be subject to the exclusive control of the school committee, who shall have full power to cause the same, or any part thereof, to be expended in any manner which they may deem most advisable, for the benefit and welfare of the schools, excepting so much thereof as will be from time to time required for the payment of the salaries established by this ordinance, and excepting also all such appropriations as may be made for a specific purpose or purposes. Said committee shall also have full power and authority to alter, from time to time, as they may deem expedient, the bounds of the several school districts, in order to provide suitable locations for such new schools as may hereafter be established by the City Council, or to make a more equal apportionment of pupils to the several schools. It shall be their duty to see that the school-houses and estates are kept in proper repair; to select and designate the best text books, and to provide all such apparatus, and all other means of instruction for all the schools, as may be necessary for keeping the same in efficient operation, and for enabling the pupils to receive all the advantages therefrom which it is the intention of this ordinance to provide and secure. Said committee shall have and exercise a general discretionary power in all matters and things relating to the public schools, which are not specially provided for by this ordinance, or by the laws of this State, and not repugnant to said laws, or to the provisions of this ordinance.

Sac. 11. That it shall be the duty of the aldermen and members of the Common Council from each of the wards in the city, on or before the first Monday in May in each year, to recommend to the City Council three candidates for election as members of the school committee for the ensuing municipal year, which recommendation shall be made by filing a list of the names of such candidates in the office of the city clerk.

Sac. 12. That this ordinance be published three weeks successively in the semi-weekly *Morning Courier*, *Manufacturers' and Farmers' Journal*, and *Republican Herald*.

Passed April 9, 1838. A true copy: witness,

RICHARD M. FIELD, City Clerk.

This ordinance has been modified in several respects since its adoption, in order to adapt it to the wants of the community and of the schools. The number of the primary schools has been increased; a new class of schools, (the "intermediate,") has been introduced; the salaries of all the teachers in the high school have been changed, and also that of the master of the grammar school for colored children; and several other less important alterations have from time to time been made.

Immediately after the adoption of the "ordinance," the City Council appointed a committee to examine all the public school-houses and estates, and instructed them to report, at an early day, what alterations and additions would be necessary in order to carry the whole system into effect. This committee, pursuant to their instructions, made a thorough examination of all the old school-houses, and reported that they were "all unfit for use in their present condition, and were all either too small, too dilapidated, or too badly constructed to be worth repairing." In June, 1838, another joint committee was appointed, with instructions to report plans for new school-houses, and also to present estimates of the cost of erecting them on the different plans which the committee might lay before the City Council. This committee caused a set of drawings to be made, exhibiting the exterior and interior of a house for a primary school, and one for a grammar school. These plans were reported to the City Council, in connection with a bill recommending the appointment of a "building committee." This recommendation was adopted, and the building committee were authorized "to cause such of the present public school-houses to be removed or taken down, and such new school-houses to be erected and furnished, as may be necessary to carry into full operation the provisions of the ordinance."

Contracts for the erection of all the school-houses contemplated in the ordinance, were soon made. Much more time was required for their completion than was at first supposed necessary. The provisions of the ordinance required the whole system to be carried into effect in the month of September, 1838. But in consequence of the slow progress made in completing the school-houses, it was found to be impossible to have them in readiness for the reception of pupils at so early a period. The City Council, disposed to allow the builders ample time for the completion of their work in the best manner, suspended, for nearly a year, all the provisions of the ordinance, except that section which authorized the school committee to appoint a Superintendent of public schools. They recommended that the appointment of that officer be made without any unnecessary delay.

After a careful examination of the credentials presented by the several candidates, the Board of Examiners "resolved unanimously to recommend to the school committee, Mr. Nathan Bishop, at present a tutor in Brown University, as a suitable candidate for the office of Superintendent of the public schools of this city," who was duly elected at a following meeting. The superintendent entered upon the discharge of the duties of this new office the first day of the month of August, 1839.

Early in the year 1840, thirteen of the new school-rooms were completed. At the commencement of the summer term in the same year, all these rooms, containing accommodations for about two thousand children, were opened for the reception of pupils. Although several of the new school-houses contemplated in the "ordinance" were not yet completed, the "new school system" dates the commencement of its operation from the first day of June, 1840. At that time, a large number of additional teachers were appointed, and the salaries established in the "ordinance" were for the first time allowed. The number of scholars in all the public schools in the city, had never exceeded 1740. The first day on which the

new system went into operation, more than a thousand pupils entered the public schools who had never been to one before. The number of scholars increased every month, as the prejudices which had long existed against public schools were gradually removed. All the rooms were soon crowded to excess. The City Council was soon called upon to establish additional primary schools, and to erect houses for their accommodation. Within two years, the number of scholars in the public schools was more than double that in attendance under the old system. The grammar schools were so full that many pupils who were prepared to enter upon the course of studies therein pursued, could not be admitted. To provide for this class of children, a new grade of schools—one not contemplated in the ordinance—was introduced into the system of public instruction. This grade was denominated "intermediate schools," as they were established for the accommodation of the *lowest* classes in the grammar schools, and of the *highest* in the primary. The introduction of this new class of schools is the greatest improvement which has been made in the system since its adoption. It has made better provision for the instruction of children placed in the intermediate schools, than they would have otherwise enjoyed, and has, at the same time, increased the facilities for teaching and for learning in the primary and in the grammar schools. Before the close of the year 1842, all the new school-houses required in order to carry the provisions of the ordinance into effect, were completed, except the building for the high school.

The expenses of erecting so many school-houses within so short a period, bore somewhat heavily on the city treasury, and greatly increased the city debt. The cost of the school-houses and the estates, when finished, far exceeded the original estimates made in the City Council, when the resolution to erect new school-houses in every district in the city was adopted. It was urged, both in the City Council and in various articles published in the newspapers in the city, that the expenditure of money for school-houses had already exceeded what was anticipated in the adoption of the new system of public schools. A movement was made to repeal that portion of the school ordinance which required the establishment of a high school. It was argued that there had been a change in public opinion on the subject of public schools since the adoption of the ordinance, and that a majority of the citizens was opposed to the expenditure of the sum of money necessary for the erection of a suitable building for the high school, and for its annual support. A minute description of the new school-houses, was given by Mr. Bishop in a Report to the School Committee in 1846, which is re-published entire in this volume, page 334, and in Barnard's School Architecture.

A proposition was made in the City Council to submit again the question of having a high school to the voters in the city. The proposition was adopted, and on the ballots prepared for the occasion, the question, "Are you in favor of a Public High School?" was printed, and each voter requested to write on his ballot "Yes," or "No," in answer to this question. The majority in favor of a high school was much greater than the most ardent friends of popular education had anticipated. Public opinion, it is true, had changed, but it had changed *in favor* of the school system.

The high school building was commenced immediately. But when it was nearly completed, (about two years afterwards,) another movement was made to prevent that school from going into operation. The former argument of its unnecessary expensiveness was repeated, and was accompanied by a proposition to convert the new building into a city hall. After a spirited newspaper discussion of the subject, a petition was drawn up, addressed to the City Council, praying that body to repeal that portion of the school ordinance which established a high school, and to appropriate the new building to the purposes of a city hall. This petition was widely and industriously circulated, at a time most favorable to its success—a time when the whole community was suffering from pecuniary embarrassments, and every one felt the importance of retrenchments, both in public and in private expenditures. Yet, with all this advantage, the petition received so few signatures, that it was never presented to the City Council.

The failure of this scheme terminated a long warfare, which it must be confessed was waged manfully by both parties. Since 1843 there has not been anything like an organized opposition to any feature of the system of public instruction in the city ; but on the contrary, there has been a continual growth of a wide spread feeling in the community in favor of the public schools up to the present time, (1849.) The system of public instruction adopted in 1839, has worked so satisfactorily for ten years, that were the whole scheme to be re-arranged at will, no one change could be proposed which may not with ease be engrafted upon the present plan, without disturbing its harmony of action or diminishing its efficiency.

Vocal music was introduced in 1844 as an important branch of useful learning which has been found to *aid* rather than *check* scholars in their progress in other studies. From the commencement of the new system, some of the teachers had taught their scholars to sing various tunes by mere imitation, but since 1844, the children in all the public schools, except the primary, have had thorough instruction in *vocal music* both as a science and an art, by a professional teacher employed for the purpose. Most of the pupils can read and sing common music at sight.

The course of studies in all the schools has become more and more enlarged, as the general system has gradually expanded, so that several branches formerly taught in the higher grades of schools are at present completed in the next lower grades. The pupils admitted to the high school in 1844 were at least one year's hard study behind those admitted in 1848. This difference in the attainments of the scholars at the beginning of the course has made room for the introduction of new branches of learning in the high school. The most important of these is plain and practical drawing, which is taught to all the scholars during the whole course of three or four years, in order that they may be able to delineate any common object, or view, with as much readiness and accuracy as they could describe them in written language.

II. PRESENT ORGANIZATION AND CONDITION OF THE PUBLIC SCHOOLS.

The progress of the system since 1838, from year to year, can be followed in the annual reports of the school committee to the City Council, which will be printed entire in connection with this document, after giving a sketch of the present organization and condition of the public schools.

The School Committee of the city of Providence, consisting of thirty members, are the legal guardians of the public schools, and are annually elected by the City Council, with power to fill all vacancies that may occur in itself during the year. For the more perfect discharge of the duties assigned by law to the School Committee, they have for the last ten years, annually elected a Superintendent of public schools, who acting under their advice and direction, devotes his whole time to the care of the public schools, which have increased to forty in number, and are divided into four grades, viz. 1st, Primary ; 2d, Intermediate ; 3d, Grammar Schools ; and 4th, High School, which are described as follows :

FIRST GRADE.—There are now established in the city twenty *primary schools*. These schools are designed for pupils from four years of age to seven, according to their advancement in learning. Each school is under the immediate government and instruction of two female teachers, a preceptress and an assistant, and usually contains about one hundred and thirty pupils. The teachers in these schools, besides teaching the elements of reading, spelling and arithmetic, give their pupils much oral instruction, of a familiar kind, suited to their age, with daily exercises in *vocal music*.

SECOND GRADE.—There are twelve *intermediate schools* established for children from six to eight or nine years of age, including those that were formerly in the first classes in the primary schools, and those in the lower classes in the grammar schools. Each of those schools usually contains about one hundred and twenty pupils, who are under the instruction and management of two female teachers, a preceptress and an assistant. The scholars in these schools advance progressively to more difficult lessons in reading, spelling and arithmetic, and begin to take lessons in writing and geography, and also in vocal music, by a professional teacher of that branch.

THIRD GRADE.—Seven *grammar schools* are now established in the city, for the instruction of scholars from eight or nine years old to twelve or fourteen. Each grammar school, except the one for colored children, usually contains 220 pupils, who are under the government and instruction of a master and two female assistants.

In these schools the scholars use a new set of text books, which present more enlarged and accurate views of the branches they have already begun, and in these books continue their exercises in reading, spelling, writing, arithmetic and geography, and commence English Grammar, the history of the United States, and general history. Instruction in *vocal music* is given in these schools and also in the high school, by a professional teacher, who devotes his whole time to teaching vocal music in the public schools.

FOURTH GRADE.—One high school with two departments—one for boys and one for girls. Each department will accommodate 120 pupils—making 240 in the school. The full course of studies in the school occupies *three years*, and in accordance with this arrangement, the boys are divided into three classes of 40 each, and placed in separate rooms, under the government and instruction of a master. The girls are also divided into three classes, and each class placed in a separate room, under the care and instruction of a mistress. The course of studies in each department is adapted to the conditions of the pupils in after life, each sex pursuing all the common branches alike, but the boys taking the more scientific course, and the girls the more literary for the last two years.

In the above forty public schools, there are engaged eighty nine teachers—twelve gentlemen and seventy-seven ladies—who devote themselves faithfully to the instruction and government of their respective schools, which together contain about six thousand and three hundred pupils.

For the last nine years these schools have been under the special care of NATHAN BISHOP, Superintendent of Public Schools. Under the advice and direction of the School Committee, he spends all his time, in exercising a careful supervision over all the public schools, furnishing them with all necessary supplies, and promoting in every practicable way their general improvement.

III. ANNUAL REPORTS OF THE SCHOOL COMMITTEE TO THE CITY COUNCIL, FROM 1838 TO 1848.

REPORT FOR 1838.

To the Hon. Council, of the City of Providence.

The School Committee, as required by law, report: That during the year past they have visited and examined the public schools, and have in other respects discharged the important trusts reposed in them to the best of their judgment and ability. All the schools maintain a fair and respectable standing as at any former period, and though susceptible of improvement, still continue a source of much usefulness to the public. The whole number of schools is fifteen, being the same as at the close of the last municipal year, viz. five writing schools, eight primary schools, and two for children of color. The number of scholars in actual attendance, averaged 1626 during the year. It will be seen that the schools are more numerously attended than at any time heretofore, and the consequence is that the scholars are too much crowded. A free circulation of good air is necessary, not only for the comfort, but also for the health of both teachers and pupils. The number of scholars annually increasing produces a corresponding increase of the annual expenses of the school. The amount appropriated last year, by the city council, was \$7,600, besides the sum received from the state, which was \$1734 73. The committee confidently indulge a hope that the improved system of education lately adopted by the city government, will be speedily carried out to the great advantage of the community.

All which is respectfully submitted for the committee by
SAMUEL W. BRIDGHAM, President.
Providence, May 24, 1838.

REPORT FOR 1839.

To the Hon. Council, of the City of Providence.

The School Committee, as required by law, report: That they have attended, during the year past, to the important matters entrusted to their charge, with all due fidelity to the schools and to the public. They have visited and examined the schools quarterly, and, by their sub-committees, at other times during the several quarters. The schools, in the opinion of the committee, still maintain as fair and respectable standing as at any time heretofore. The number of the schools is the same as at the time of the last annual report, to wit, fifteen, and their grades are the same, to wit, five writing schools, eight primary schools, and two schools for children of color. In two of the writing schools a change has been made in the teachers, whereby female assistants have been substituted for male ushers, to wit, two females for one male in each; so that there are now, in the whole, thirty-four teachers, six of whom are males, and twenty-eight females. The number of scholars in actual attendance, at the several quarterly visitations, were as follows: in August, 1799; in November, 1740; in February, 1756; and in May, 1874; averaging through the year, 1782. The number belonging to the several schools were much larger. By referring to the former reports of the Committee, it will be seen that the schools are more numerously attended than at any former period; more school room is, therefore, required. This subject was brought before the city council in the last annual report of the committee, and the necessity of more ample accommodations was stated and urged. It is unnecessary, therefore, any further to remark at this time, than that the constantly increasing number of scholars, renders it more and more necessary to attend to, and to act in relation to this matter. The annual increase of scholars must be expected to produce, correspondently, an annual increase of the expenses of the schools. The amount to be received from the state, towards the support of the public schools, instead of increasing, will not be so

great for the future, under the present law, as it was for the year past, the General Assembly having, by their act passed at their last January session, lessened the amount appropriated for the support of the Public Schools throughout the State. Before that act was passed, the sum of ten thousand dollars, together with all the interest accruing to the State from the deposit of the surplus revenue of the United States, was appropriated to that object, to be paid annually, amounting in the whole, last year, to the sum of \$27,676 24, the interest arising from the deposits being \$17,676 24. But by that law, only the interest accruing to the State from the deposits, as above mentioned, together with so much more out of any money in the treasury as will make up the sum of \$25,000 in the whole, is appropriated to be paid annually; our proportion of which, for the ensuing year, will be but \$3,818 20, being \$408 70 less than the amount we have received the year past. Further, inasmuch as the whole interest which has been received to the State during the year now closing, and to be paid over to the several towns and this city for the support of the schools the ensuing year, amounts to \$18,990 14, and being added to the \$10,000 formerly appropriated, makes the sum of \$28,991 14, which would have been distributed instead of said sum of \$25,000 as above stated, had not the act of last January been passed; the difference being \$3,991 14, and our proportion thereof would have been \$4,427 75, instead of \$3,818 20, as above stated; so that we should receive \$609 55 more than we shall now receive, and it will probably remain about the same until the law shall be altered. By the before mentioned act of the General Assembly, of January last, the school committees throughout the State are required to make returns in relation to the Public Schools in their respective towns, and in this city to the Secretary of the State, on or before the first Wednesday of May annually. In compliance with that law, the committee have accordingly made, in due season, a return of the Public Schools of this city, to the Secretary of the State for the year past, a copy of which is hereto annexed. The amount appropriated by the city council for the support of the schools last year, was \$1800, besides the sum received from the State, which was \$4,226 90. The amount expended for instruction is \$8,486 09. The amount for repairs of school-houses, \$155 55; for fuel, \$314 22, and for incidental charges, \$327 17. Owing to the uncertainty as to the progress which may be made in carrying out the new system of education adopted by the City Council, it is difficult for the Committee to judge what sum will be required for the support of the schools during the ensuing year. They, however, think it advisable, under all the circumstances of the case, that the sum of \$9,000 at least, besides what may be received from the State, should be appropriated for that purpose.

May 23, 1839.

S. W. BRIDGHAM, *President.*

REPORT FOR 1840.

To the Hon. City Council of Providence.

The School Committee respectfully report: That owing to the increased number of their duties during the year past, the complicated and arduous nature of those duties, they have holden more meetings than were ever before holden in any former year. Much additional time and attention of the Committee have been occupied in the measures taken and pursued to carry into effect the revised plan of popular education adopted by the City Council. The execution of that plan is now in a great state of forwardness. All the schools have been visited and examined every quarter agreeably to the rules and regulations of the Committee. In the opinion of the Committee very considerable general improvement has been recently made under the new system, and every thing promises still further results favorable to the progress of useful knowledge and moral discipline. The whole number of schools now established, including one new grammar school, and three new primary schools, which are expected to commence the fore part of next month, is 18, namely six grammar schools, eleven primary schools, and one school for colored children. The school hereto-

fore kept for colored children on the west side of the river has been, within the last year, discontinued, for want of a sufficient number of scholars to warrant the expense of its support. The whole number of teachers is 42, viz. seven males and 35 females. The high school has not yet been established, in fact, no progress has been made in relation to that part of the new system, except the purchase of a site for the school-house, and nothing at all has been done touching the house for the grammar school, and the primary school in the 2d District. Within the year past, an additional school-house, so much and so long talked of in the 4th ward, has been erected, and the additional grammar school, together with one of the Primary schools, are to be opened therein at the time above mentioned. This new grammar school, and the three new primary schools make, after deducting the school for colored children, which has been discontinued, the whole number of schools at this time eighteen, as above mentioned, instead of fifteen, as at the commencement of the last year. Five new grammar school-houses, and three new primary school-houses, making eight in the whole, have been built during the year past. In each of the former, provision is also made for a primary school. The whole number of school-houses now belonging to the city and to be in future occupied is nine. There are, also, two others occupied for public schools, one of them is hired, and the other is gratuitously occupied with the permission generously allowed by the owners of the building, and of the lot whereon it stands, on our keeping the same in repair. The old school-houses and estates, which will be hereafter unoccupied, will soon be for sale. There have been during the year past, several changes of teachers, and several new ones appointed in addition, to complete the requisite number for the new schools. The principals of three of the grammar schools having resigned, three other persons have been appointed in their places. A number of female teachers have also been appointed, to succeed others who have resigned. The Committee deeming females to be preferable to males, for both principals and assistants in the primary schools, and for assistants in the grammar schools; all the teachers of those descriptions are now females. That the character and reputation of the schools are advancing, and the confidence of the public in their usefulness increasing, is evinced by the extraordinary increase of the number of pupils. More scholars now belong to the schools than at any time since their establishment, and their increase far exceeds the increase of population. The appointment of a superintendent proves, on trial, to be a sound and judicious measure, and is producing, under the present able incumbent, results highly satisfactory to the Committee, and, in their judgment, very valuable to the community. The amount appropriated by the City Council for the support of the schools last year, was \$8,500, besides the sum received from the state, which was \$3,818 20, making in the whole \$12,318 20. The amount we shall receive from the State, this year, towards the support of the schools, will doubtless vary but very little, if any, from the amount received last year, \$3,818 20.

All which is respectfully submitted by

SAMUEL W. BRIDGHAM, *For the Committee.*

Providence, May 25, 1840.

REPORT FOR 1841.

To the City Council of the City of Providence.

In rendering the account of their proceedings for the past year, prescribed by law, the school committee have great pleasure in being able to state to the city government, that our improved system of public education, so far as it has been carried into effect, has answered the just expectations of its friends, and has strongly recommended itself to the public favor. The most satisfactory evidence of this is a large and continual increase of pupils in the schools. The pleasure which we take in making this communication is enhanced by the gratifying assurance, that a portion of this system, deemed of very great importance, and indispensable to the best success of the other parts of the system, after great delays, is about to be reduced to practice, by the erection of a high school; which we hope to see in operation before the end of another year, ample provision, as it is understood, having been made for the cost of the building.

In addition to the regular quarterly meetings for the visitation and examination of the grammar schools, the committee have held nine adjourned, or special meetings in the course of this year,—five less than in the year preceding;—a difference which is explained by the unusual demand upon the time of the committee in that year, for the consideration in detail, of a new code of by-laws and regulations, adapted to the changes that have been made in our plan of education. The average attendance at the meetings has been twenty-two of the thirty members, who compose the committee.

The whole number of school districts is six, and of schools nineteen, viz. six grammar schools, twelve primary schools, and one school for colored children, which combines the instruction both of the grammar and primary schools. The grammar schools have been transferred to the new and commodious buildings erected for them, with the exception of the school in the second district, which remains in the old building. This building has undergone considerable repairs to render its occupation less inconvenient to scholars and teachers; and it is to be hoped, that before the end of the next year, the new house now in contemplation, at the corner of Angell and Prospect streets, will be completed, and that thus the inhabitants of the second ward will equally participate in the improvements designed for the whole city.

In consequence of a pressure of pupils upon some of the grammar schools, it was deemed necessary, in December last, to apply to the city council for leave to make use of the ward-rooms for school purposes; and a portion of the pupils in the third, fifth and sixth districts, were placed in these rooms, under the charge of an additional assistant for each, and with the supervision of the principal teacher. In the third district, it is believed that the difficulty will be obviated by the erection of a larger building in the second district, and by altering the boundaries of the two districts, so as to equalize the attendance in each. In the fifth district the pressure has so far diminished, that the branch-school in the ward-room has been discontinued; and it is doubted whether it will be necessary to make use of the ward-room in the sixth district during the next quarter. It will be seen from this statement, that the attendance upon our schools is somewhat fluctuating, though the number of scholars is largely on the increase. The high school will, in part, prevent the accumulation which now takes place in the grammar schools, by withdrawing, at stated periods, a considerable portion of their scholars; so that the buildings now erected for these schools, may furnish the necessary accommodations for some years to come. But the time is probably not far distant, when it will be thought

advisable to devote the ward-rooms to the primary schools, some of which are already too much crowded. The occupation of these rooms, by classes intermediate between the primary and grammar schools, will afford relief to the latter; and may be found advantageous to both.

The primary school in India street having been removed to the new house in East street, the building in which it was kept has been put in good repair, and surrendered to the proprietor, Hon. Nicholas Brown, to whose liberality we have been indebted for its occupation, without rent, for several years past.

For the accommodation of the fourth and a part of the fifth district, a primary school was opened in Mathewson street; and it has recently, for greater convenience, been removed to the old school-house in Richmond street.

The whole number of school-houses belonging to the city is eleven. The school for colored children and the primary school on Federal Hill, are kept in hired houses.

The number of teachers in the schools is forty-three—seven males and thirty-six females; of whom it is due to justice to say, although of course they manifest various degrees of excellence, that, taken as a body, for the useful and faithful discharge of their laborious duties, they are entitled to great praise; and, so far as we are able to speak from our own observation, will compare honorably with teachers of the same class in those places of New England, which are considered as having made the greatest advances in public education.

In the course of the year several changes have been made among the teachers, in consequence of resignations; and it has become necessary to supply the places of the grammar master in the second district of two assistants in grammar schools, of two preceptresses of primary schools, and of three assistants in the same.

The whole number of scholars whose names have been entered on the books in the schools, during the last quarter, is 3486, viz. 1363 in the primary schools, and 1623 in the grammar schools. The whole number at present belonging to the schools is 3035, viz. 1674 to the primary, and 1361 to the grammar schools. The whole number present at the last quarterly examinations was 2791, viz. 1537 in the primary, and 1254 in the grammar schools. The average daily attendance in all the schools is 2419, viz. 1260 in the primary, and 1159 in the grammar schools, leaving of course an average daily absence of 414 in the former, and of 202 in the latter; in other words, of 25 per cent. in the primary, and over 15 per cent. in the grammar schools. In the last annual report of the committee to the city government, it was stated, that at the quarterly examinations in May, 1840, the number of pupils in attendance was 1977; which when compared with the attendance at the examinations in May, 1841, already given, makes a gain in one year of 814.

In some of the best private schools, for larger children of both sexes, which we may adopt as standards of comparison in this case, the amount of daily absences is from ten to twelve per cent. of the whole number of pupils; which makes a difference of from three to five per cent. against our grammar schools. So large an amount of absences, is highly censurable, and can be justified by no excuses of sickness or necessity; and it becomes a matter of great regret and concern, that so many parents and guardians should thus undervalue and throw away the liberal provisions for public education made by the city. Besides the detriment to the pupils, thus unwarrantably absenting themselves, a serious injury is inflicted by them upon those who punctually and regularly attend the schools, by deranging the classification, and by interrupting the uniform progress in the same studies which are so essential to success, and without which the best plans, and the most ample endowments may be set at naught, and rendered comparatively inefficient. The remedy for the evil complained of, is with the people themselves. Such a thing as compulsory education forms no part of our legal system. When the extent of the duties imposed on the school committee is considered it cannot be reasonably expected that they should undertake the additional task of going from house to house, to urge

the delinquent to come in, and partake of the neglected advantages of public instruction. All that the members of the committee can do in this way, they will do cheerfully; but they must mainly depend upon the good sense and good feelings of the mass of their fellow citizens for the just appreciation and hearty adoption of a school system, which tends, without partiality or exclusion, to the public welfare, and is thus commended to the voluntary and cheerful support of the whole community.

It would be interesting, if possible, to ascertain what portion of the youthful population of Providence are receiving instruction in all the schools, both public and private. The number of children in this city between the ages of four and fifteen years, as nearly as it can be obtained from the census of the United States for 1840, is 5267. The whole number of scholars at present belonging to our public schools, as before stated, is 3035, leaving 2232 children, a part of whom are receiving instruction at private expense. A resolution was communicated some time since by the committee, suggesting a small appropriation for the expense of making the requisite inquiry; but it received attention from only one branch of the city council.

The whole amount received from the city during the past year for the expenses of the public schools is \$12,377 67; from the state \$3,818 20—total \$16,195 87. Of this amount \$13,175 have been expended for instruction, including the compensation of the superintendent; and \$3,020 87 for rent, fuel and other items, including about \$1,200 for repairs on school-houses, and for fixtures. The expenditure of the city, as aforesaid, for education is at the rate of \$1.33 a quarter, or \$5.34 per annum for each scholar belonging to the schools. The rate in the city of New York, as appears by a recent statement, is \$5 per annum for each scholar. In Boston it is much larger; and, in general, the expenses of the larger towns in Massachusetts, on the same account, are much greater in proportion to population than those of this city. Before the close of another year we hope to obtain more precise information on the subject of the comparative cost of education in different places, and to communicate the same in our next report.

Under the new census of 1840 the sum to be received by this city from the state for public instruction will exceed \$5,000.

Considering all circumstances, the committee recommend that an appropriation of not less than \$12,000 be made by the city council for school expenses in the ensuing year.

The annual return to the secretary of state, and also the certificate to the general treasurer, that the money received from the state has been expended in the prescribed manner, have been duly furnished, according to law.

At the commencement of the school-year the committee consisted of thirty members, the whole number that the law allows; and the committee has been kept full by the election of new members to fill all vacancies that have occurred. The place of Mark Tucker, resigned, has been filled by the election of Richmond Prownell; that of George W. Jackson, removed from the city, by Alexander Duncan; that of John Ames, also removed from the city, by George H. Tillinghast; and that of Samuel W. Bridgham, deceased, by Amos D. Smith. In the death of General Bridgham, the committee were called upon to regret the loss of a member, who, for many years, with ability, fidelity and dignity, had presided over the deliberations of this board, and who had inspired general confidence and respect by his exemplary virtues, by his habitual caution and diligent attention in the discharge of all duties however minute, by his accurate business habits, and by that practical wisdom which age and experience conferred upon a sound and discriminating intellect. The committee promptly and cordially united in that tribute of private and public respect which was so generally accorded by his fellow citizens to the memory of our lamented associate and friend.

Regarding the agency of a superintendent of public schools as virtually connected with the prosperity of our entire system, we cannot more appropriately close our present report than by a brief review of the circumstances which gave so much importance to the appointment and duties of such

an officer. And, in the outset, we may say, that the object of the appointment is not to relieve the committee from their own peculiar duties, but to ensure the performance of an amount of labor, in the supervision of the schools, which cannot be bestowed by the individual members, without the sacrifice of all their time and business. The meetings of the committee have been much more numerous since the employment of a superintendent than before. Beside their attendance at the quarterly meetings and examinations, and at special meetings, which frequently occur, the members are assigned to sub-committees, which are charged with the oversight of the several districts, and the individuals of which are required to visit all the schools in the same at least once in a quarter. In addition to these duties in the sub-committees named, many of the members are called upon to act in other sub-committees, as the executive, that on the qualifications of teachers, and another on accounts, to say nothing of numerous special appointments, which occur in the course of the year. To specify the labors of a single sub-committee—that on qualifications: the examinations held by them have become more frequent, in consequence of the changes which unavoidably occur in so large a body of teachers; and the examinations never occupy less than a half day, sometimes a whole day. This sub-committee, a little more than a year since, in two sessions, examined sixty-two candidates for vacant places; and the average of applicants is five or six for every vacancy. It is also prescribed to this sub-committee from time to time to revise the course of studies. After adding to what has been mentioned, the hearing of complaints, the making of reports, and various other details, which it is not necessary to particularize, it would appear that an amount of duty has been devolved upon, and actually performed by a committee, who are all engaged in some business or profession, requiring their daily attention, and who serve cheerfully without emolument,—sufficient to relieve them from any charge of lukewarmness or supineness in the execution of the trust committed to their hands. While therefore they would not exaggerate their labors, they are equally unwilling that the appointment of a superintendent should cause them to be underrated, through the mistaken impression that they are doing less than they were before. The committee are doing more than at any former time; and yet how very far short of an actual supervision of *the whole system* is the greatest amount of exertion which the individual members can ordinarily bestow upon this important engagement to the public. Take the committee-man first in his own district. What are one or two visits in a quarter to the schools in that district to enable him to understand all the wants and interests of those schools, the merits and defects of the teachers, the modes of organization, discipline and instruction, and the desirable changes to be made and the mistakes to be corrected. But suppose him to have tolerably well mastered the details of his own district;—there are nineteen schools in this city, without some personal knowledge of which, the members of the committee can be but very imperfectly acquainted with their comparative condition, and can know but little of the merits and defects of our system taken as a whole; and hence it was a common complaint under our old plan of proceedings, that, at our general meetings, there was some member present, who knew more or less concerning one or more of the schools, and seldom or never one who had anything beyond a general and indefinite knowledge of any considerable portion of them. When the members from a district had reported that their schools were “in their usual good order and condition,” there was no one to doubt or contradict the announcement; for the members were prevented from going beyond their own precincts by the pressure of their daily avocations. And thus it happened that there was hardly a member of the committee who was acquainted with all the schools, and who could estimate their true standing and the character of their teachers,—who could say whether the latter were stationary or progressive, whether they required to be urged on or to be restrained, whether they deserved to be commended, or had ceased to be useful. And how could it be otherwise? To pay one visit in a quarter to each of the public schools, and to make any thing that may be called an examination of it, will interrupt the work—

ing time of half a day, and thus occupy *one-ninth* part of the whole quarter; the mere statement of which fact shows the entire impracticability of any one member attempting anything like an oversight of all, or any large part of our schools. In practice, any member, who, at the end of a year and a half from the time of his election, has visited every school in the city, may be said to have done well. Many have never "been the rounds" at all; and yet have not been neglectful of a fair proportion of the general duty.

Without enlarging farther upon the obvious necessity of some expedient for a more general, thorough and constant supervision of the schools, it is sufficient to say, that the provision of the city council of a sufficient salary to secure the services of a competent individual for this laborious and responsible undertaking, was regarded by us with the greatest satisfaction, as a necessary and important experiment in the school system; and experience has fully confirmed the wisdom of such an appropriation.

The superintendent devotes himself exclusively to the business of his station; and is daily occupied in visiting and examining the schools, and inspecting the whole system. It is his duty to become personally acquainted with every teacher in the schools, and to see that they all perform their appointed duties, and to give them all necessary advice and directions. He is required to pay particular attention to the classification of the pupils, and to the apportionment among the classes of the prescribed studies. Passing constantly from school to school, he is able to ascertain the points in which they differ favorably or unfavorably from each other; and to transfer improvements as well as to remedy defects. He brings together the teachers, to interchange their views upon various points of instruction and discipline; and thus to create harmony of action, and to cause the whole system to tend toward a uniform standard of excellence.

He has a care over the school houses, estates and apparatus; and renders such assistance to the sub-committees as may be required by them; especially to the executive committee, in the repairs of school-houses and estates, and in supplying the schools with furniture and fuel. He furnishes the necessary blanks and registers to the sub-committees and teachers, and the apparatus to the schools; and supplies destitute scholars with school-books. He holds regular quarterly examinations of all the primary schools, and makes transfers of pupils to the grammar schools. He keeps a record of his proceedings, open to the committee.

Such is an outline of the every day duties of the superintendent; and to the discharge of those duties which are immediately connected with the schools he is expected to devote the six school hours of the day. His time from twelve M. to half past one is set apart for such calls as may be made upon him by teachers, pupils, parents, or others, on school business.

For the information and aid of the committee he is required to acquaint himself with the principles and facts which concern the interests of popular education; and at each quarterly meeting he presents a report in writing on the condition of the schools, accompanied with the written reports of the teachers made to him; and he responds to all inquiries that may be made of him on all the subjects pertaining to the duties of his office. He is also required to prepare a general report, at the close of the school year, for publication.

It will thus be readily seen that a great deal of valuable information is accumulated for the committee, which, as before shown, they cannot well accumulate for themselves. They are thereby enabled to act understandingly and deliberately upon all the interests committed to them; and, as the superintendent acts under their advice and direction, through his agency, to carry their own views and purposes more thoroughly and effectively into execution than before.

The labors of the superintendent have put a new face upon our business meetings. The generalities with which we were before necessarily occupied, from the imperfect acquaintance of any one individual with all the schools, have given place, in a good measure, to details and specifications. Every member is thus put in the way of inquiring for himself, where he deems inquiry necessary. Attention is directed to weak places. Impulses to duty are given when needed; and a healthy working point is uniformly

and steadily maintained. The new era in our schools may be fairly said to have commenced at the date of the creation of the office of superintendent; which is literally the right arm of our system.

The exertions of an unusually active member of the committee, a popular course of lectures, or the zeal of a very able and devoted teacher, may give a temporary impulse to all the schools, or distinguish some particular school above the rest; but to maintain a good average degree of excellence in all, and to satisfy the just demands of the public, we know of no effectual method but that of keeping up the perpetual and vigilant oversight which has been described; and which can be exercised only by some person, who devotes his whole time and industry to this special avocation.

After this hasty summary, the question—"What are the duties of the superintendent?" may be exchanged for another—How does he find time to do them? They necessarily presuppose a man of good abilities and education, of an active, practical mind, endowed with much diligence, and power of patient attention to details. The office was not intended to be a sinecure; and its value to the public depends altogether upon the character of the incumbent.

We have the satisfaction of being able to say, that the present superintendent, Mr. Nathan Bishop, has discharged the duties of his appointment in such a manner as to justify the confidence reposed in him by the committee.

No part of our revised plan of education has attracted so much attention and interest abroad as the appointment of a superintendent. The office, as described in the school regulations, is a new one; and the success of our experiment has been so decided, as to ensure its imitation and adoption in other places. If the question was to be taken upon the abolition of this office, or of the committee, there could be but little hesitation in saving the office with those who regard the best interests of public education.

Respectfully submitted, in behalf of the school committee, by

THOMAS W. DORR, *President.*

Providence, May 28, 1841.

REPORT FOR 1842.

To the City Council of the City of Providence.

The school committee of said city respectfully report :

That during the past year the improved system of public education has been carried forward, under their direction, with results that are generally satisfactory. The superintendent has discharged his duties with vigilance and judgment, and the committee unhesitatingly declare their opinion, that the continuance of that officer is expedient. By having such an officer, much is done in producing uniformity in instruction, and diligence and punctuality among the teachers.

The committee would, on this occasion, express their full approbation of the conduct of Mr. Bishop, the present superintendent, in the discharge of the duties of his important office. The number of teachers now in the schools is forty-four. Their conduct, generally, deserves the highest praise of the committee ; but, among so many, there will necessarily be individuals whose talents or tastes are not such as are exactly suited to the business of instructing the young.

The number of schools now in operation is twenty, viz: six grammar schools, thirteen primary schools, and one school for colored children. The high school, it is hoped, may be opened during the next autumn. There is need of one more primary school on the west side, the most convenient location for which would be in the vicinity of Rev. Dr. Tucker's church ; and it would be convenient to have another in that part of the first ward west of Moshassuck river. It is hoped that there will be no necessity for an increase of the number of grammar schools for several years.

With the school for colored children, the committee have not been perfectly satisfied. The expense has been comparatively large, and with inadequate results. It is hoped that, during the ensuing quarter, some arrangement may be made by which more instruction may be given without an increase of expense.

The whole number of scholars, whose names have been entered on the books in the schools during the past year, is 3,498, viz: 1521 in the grammar schools and 1,977 in the primary schools—the whole number present at the last examination was 1,187 in the grammar, and 1,777 in the primary. The average attendance, in good weather, in all the schools, is about 3,200.

The amount expended under the direction of your committee, for the support of the public schools, during the past year, has been \$16 649, of which \$5,057 42, has been received from the state. The expenditure for schools will increase with our population ; and as there will be in addition to that a new item for the support of the high school, the committee deem it their duty to ask for an appropriation for the ensuing year of \$14,000 dollars in addition to the sum to be received from the state, which is estimated at the same as last year.

The committee report, herewith, a schedule of the number of meetings holden by them, with the absence of each member.

All which is respectfully submitted.

THOMAS M. BURGESS,
EDWARD R. YOUNG,
For the School Committee.

Providence, May 27, 1842.

A true copy—witness.

RICHARD M. FIELD, *City Clerk.*

REPORT FOR 1843.

Report of the School Committee to the City Council.

The school committee respectfully report:—That there are now open, under their supervision, and free for all scholars of proper age, the high school, six grammar schools, and seventeen primary schools, besides two schools for colored children. The number of instructors during the last quarter has been fifty-nine, and of pupils 4,237. The committee are gratified in being able to express their satisfaction with the general conduct of the teachers; and while there must be difference in the degrees of excellence of the several schools, depending upon the character and number of scholars under each instructor, and the peculiar fitness of the teachers for their vocation, the committee believe the schools may all be considered good.

Two classes of each sex were admitted into the high school in March, and it is probable that another class will be added in September. This school appears to promise success and great usefulness; but it has been open too short a time for the committee to be able to decide whether any alterations will be necessary in the methods of instruction now pursued.

Two schools for colored children have been open during the past year; but as the attendance at the school on the west side is small, it is probable that it will be closed, and the scholars transferred to the school-house in Meeting street.

No change of any importance has been made in the organization of the the schools, excepting that of making a classification in the primary schools in those districts where the ward rooms are used; thus making a school of an intermediate grade between the primary and grammar schools. This is thought to be an improvement, which it may be best ultimately to adopt throughout the city.

The Committee respectfully request the council to decide early in the year whether the Richmond street school-house shall be repaired, or other accommodations furnished in that district. There are required two additional primary school-houses, one in the first ward, west of Moshasuck river, and one in the section lying between High, Stewart, and Pawtuxet streets; or, if there be difficulty in procuring a location there, a little south of Pawtuxet street. The committee recommend that these houses be built during the present summer; and if this be done, and the Richmond street school-house so repaired as to give two rooms, they are of opinion that no other buildings will be required for several years.

The expense of supporting the public schools necessarily increases in almost the same ratio as the number of scholars under instruction. The amount of the warrants drawn by order of the committee on the city treasurer during the last four quarters, has been \$19,574 83. The committee recommend that an appropriation be made for the next year of £21,000, including in that sum the money received from the state treasury. The high school and an increased number of primary schools will make the disbursements larger than last year. The repairs of the Richmond street school-house are not included in the estimate upon which is grounded their request for this appropriation.

Which is respectfully submitted for the school committee.

THOMAS M. BURGESS, *President.*

Providence, June 2, 1843.

REPORT FOR 1844.

To the City Council of the City of Providence.

THE School Committee of said city respectfully report:

That they have now in full operation, under their care, the High School, six grammar schools, seventeen primary schools, and two schools for colored children. These schools are instructed by sixty teachers, and contained, during the last quarter, 4,442 children. The state of the schools is generally satisfactory to the Committee, and it is believed they are of very great utility to the whole of our community. In consequence of the crowded state of several of the primary schools, the Committee intend to open two additional schools as soon as the school houses, now erecting, are ready for their reception, which will probably be in September next. The amount of warrants drawn upon the City Treasurer during the year past, for the current expenses of the schools, have been \$22,013.10. The addition of the two primary schools for three quarters of the ensuing year, will be about \$800. The Committee respectfully request that the Council will make the necessary appropriations.

THOS. M. BURGESS, *President.*

Providence, June 1, 1844.

E. R. YOUNG, *Sec'y.*

REPORT FOR 1845.

To the Hon. City Council of the City of Providence.

The School Committee of said city respectfully report:

That the instruction in the public schools has been continued during the year past without any considerable change in its character. The schools have been well attended, and the teachers have exhibited much attention, faithfulness, and ability. The whole number of schools is now thirty, of which four have been opened during the past year. One superintendent and sixty-six teachers are employed during the whole year. The salary of the superintendent is \$1250 per annum. Those of the teachers as follows, viz: seven male teachers, \$800 per annum; one \$650; one \$550; one \$400. One female teacher, \$400; one \$350; one \$300; twenty-two \$250; twelve \$225, and nineteen of \$200. The number of children who received instruction in the public schools during the quarter which ended on the 24th of May, was in all 4783. The whole amount of expense has been \$23,934.04. The Committee represent that the accommodations in the schools are not sufficient for all who are desirous of attending, and they recommend that a primary school-house be immediately erected in the north-west part of the 6th Ward, and authority given to open a school therein; and also that an intermediate school be established in the school-house on Prospect street. The school-houses, excepting those built within the last three years, require painting, which, with the expense of the proposed schools, will probably carry the whole expenses of the public schools up to nearly \$26,000 for the ensuing year. The School Committee respectfully request the City Council to make the necessary appropriations.

For the Committee,

THOS. M. BURGESS, *President.*

Providence, May 31, 1845.

E. R. YOUNG, *Sec'y.*

Third Assistant of High School,	300
Six Masters of Grammar Schools, each	800
Thirteen Female Assistants of Grammar Schools, each	225
Seven Preceptresses of Intermediate Schools, each	250
Six Assistants of " " each	200
Sixteen Preceptresses of Primary Schools, each	250
Fifteen Assistants of " " each	200
One Master of Grammar School for colored children,	500
One Preceptress of Primary School,	200

In addition to the foregoing, the committee have employed a teacher of vocal music to give instruction in the high school, the grammar and intermediate schools. This instruction has been given, under a special contract, at the rate of \$540 per annum.

The first class of girls (forty) in the high school has attended a course of chemical lectures, about twenty in number in Brown University, at an expense to the city of \$50. The attendance was limited to one class, because the others were none of them sufficiently advanced in that particular study to render a course of scientific lectures specially instructive and desirable.

The committee, in this arrangement, were governed by the consideration of economy. In no other way could an equally extended course of lectures have been secured without involving a much greater expense.

The superintendent has given his attention to all the schools in turn, as occasion might require. Much of the practical uniformity and efficiency of the system is due to his constant and well directed co operation with the teachers. His salary is \$1250 per annum.

The aggregate number of pupils during the last quarter exceeds by 216 the largest number ever before entered, averaging 72 to each instructor.

It is due to the teachers in the employ of the city, to say, that as a body, they have given themselves with unremitting diligence to the laborious and responsible duties of their several appointments; and it may, with truth, be added, that the schools have, at no time given more gratifying indications of prosperity; nor have they, at any time, been in a condition to confer upon the community more widely diffused and substantial blessings.

The expenses of the public schools, as might be expected, are constantly increasing. Nor can this be justly regarded as ground of alarm, or objection, provided there is a rigid economy in the several expenditures necessary to be incurred in the attainment of so great and so good an object. Considerable as the cost of our present school system has become, it would be difficult to point to any portion of the public funds, which are expended to better purpose; or to point to any item of our present expenditures, which might be omitted without inflicting real injury upon the community. Curtailment here would end in ultimate loss.

The total expenditures for the year amount to \$27,307 97. The expense of each quarter of the municipal year commencing in June, together with the total number of pupils belonging to the schools, is as follows:

	Number of Pupils.	Expense.
1st Quarter,	4669	\$5,465 35
2d "	4897	7,497 05
3d "	4909	6,652 63
4th "	5124	6,691 94
Average	4900	Total \$27,307 97

It is proper to state that the miscellaneous expenses during the past year have been unusually large. The grammar school houses have all been re-painted; one of the intermediate school-houses has sustained an injury of perhaps 200 by fire; a charge of from two to three hundred dollars has been incurred in planting and boxing trees for the ornament and ultimate comfort of the different school house premises. These, together with the current outlays for fuel and repairs have enhanced the miscellaneous expenses to a very unusual amount. Some of these extra items will not be expected to recur at all. The heavy expense of painting will recur only at intervals of five or six years.

The following tabular view, including the last five years, will show at once;—1, the average number of pupils for each year; 2, the aggregate expense of tuition; 3, the expense of tuition per scholar; 4, the aggregate miscellaneous expenses; 5, the same per scholar; 6, the total expenses; 7, the same per scholar.

The year commences with June.

Years.	Num- ber of Pupils.	Expenses of Tuition.	Rate per Scholar.	Miscellane- ous Expen- ses.	Rate per Scholar.	Total Ex- penses.	Rate per Scholar.
1841-2	3527	\$14,212 50	\$4 03	\$2,436 50	\$0 69	\$16,649 00	\$4 72
1842-3	3822	16,509 50	4 32	2,895 32	0 76	19,404 82	5 08
1843-4	4284	19,828 60	4 63	1,184 50	0 51	22,013 10	5 14
1844-5	4499	21,306 16	4 74	2,627 88	0 58	23,934 04	5 32
1845-6	4900	22,895 15	4 67	4,412 82	0 90	27,307 97	*5 57
		Average	\$4 48		\$0 69		\$5 17

From the above table it appears that in the four years last specified, the average numbers have increased thirty-nine per cent., while the total expenses have increased sixty-four per cent. The aggregate increase for tuition has been sixty one per cent., while the increase of tuition *per scholar*, has been only sixteen per cent.

It will be recollected that, at the commencement of this period, the high school was not in operation. The organization of that branch of instruction added, of course, a large item to the annual expenditures, and still more proportionally to the rate of tuition per scholar, because the expense for each pupil in that school is much greater than in any of the others. If we confine our attention to the last three years, comprising those only in which the schools have all been fully organized, it will appear that the expense, per scholar, has advanced but very little, being less than one per cent.; and has actually diminished during the last year as compared with the preceding, notwithstanding the large advance in the total expense. With our annual increase of numbers, the general expenses will also increase, but the rate, per scholar, will not, probably, pass beyond the present limit. Indeed, we confidently expect that it will fall below that limit, in as much as the great increase of numbers will be in those schools which are maintained at the least cost. The expense for each pupil will, we presume, now go on diminishing until it shall become necessary to establish another grammar school. It will then advance suddenly, and again fall back.

The annual cost of instruction for each child is now considerably less than it was ten or fifteen years ago, when the condition of the schools was much inferior to what it now is. By examining the records, we find that the cost of *tuition*, per head, during a period of nine years from 1819 to 1827, inclusive, was \$4 67; and during the period of twelve years from 1823 to 1839, inclusive, it was \$4 85½; and yet during nearly, if not quite, the whole of this interval, the grammar masters were paid but \$500 per annum, and other grades of tuition were proportionally cheap. In 1832, the expense, per scholar, was \$6 27, and in several years of the last named period it was over \$5 00. These facts show very clearly that in respect to public schools, those which are the *best*, are also the *cheapest*.

We cannot leave this topic without remarking that, if the high school has added considerably to our annual expense, it has added still more to the completeness and value of the education which the city proffers to all her children. It is accomplishing in the happiest manner, all that its warmest friends anticipated at its commencement.

The committee, encouraged by their past efforts, and especially by the prompt and liberal manner in which the city council has uniformly responded to their call for the means of extending and perfecting the present school system, have aimed at the highest excellence. They have wished

* We observe by a recent Report of the Controllers of the Public Schools of the city of Philadelphia, that the cost, per head, for upwards of 36,000 children, is \$5 67.

to adopt all such measures of improvement in respect to instruction, discipline, and moral influence, as seemed most likely to place the public schools in that commanding position which the best friends of popular education would desire them to occupy.

The attentive observer will not fail to perceive that our schools, as a whole, have, for several years past, been undergoing progressive improvements. We believe that they rank, at the present moment, with the very best public schools of the country. Their value to the community cannot be too highly appreciated. The five thousand boys and girls now in process of education in the public schools, will shortly become the men and women of the city, and of the state; and will wield no inconsiderable portion of the influence which is to mold the destinies of both. How important, then, that they receive an education in all respects the very best, which, under the circumstances of the case, can be given them! What expenditure of time or money could be deemed extravagant, which is really preparing the rising generation to perform well and nobly the duties of American citizens?

The object of public instruction should be the development and formation of character, both intellectual and moral; and the consequent preparation of youth for the responsibilities of manhood. Intellectual culture alone is not sufficient. The mere matter of reading, arithmetic and grammar, or even of literature and science, in their broadest extent, falls far short of the whole object of education.

The powers of the understanding must be unfolded and strengthened by the prosecution of studies specially fitted for that purpose. But are not the moral faculties of children equally capable of cultivation, equally essential to right conduct, and ultimate success in life; and, therefore, equally deserving the care and solicitude of those whose duty it is to direct the course of public instruction? Nor is it at all beneath the dignity, or apart from the duty, of the public teacher, to descend, occasionally to all those details, which, even in little things, pertain to the cultivation of good manners, and aim at the prevention and the cure of coarseness, rudeness and ill-breeding.

We would, therefore, have the influence of our public schools such as to cultivate, in every child, over and above its intellectual discipline, habits of personal cleanliness, of order, of punctuality, of diligence; and, above all, habits of undeviating truth and incorruptible honesty. The great principles of right and wrong, the respect due to age, station and authority, should be illustrated and enforced by every means which ingenuity can devise. The pupil should be trained, as far as possible, to love whatsoever is virtuous and honorable and of good report. Nor can the moral influence of instruction be regarded as complete until the great Christian precept, that of "doing unto others as we would that they should do unto us," is deeply impressed upon the mind of every child. To the accomplishment of this object of early instruction, as well as to that of intellectual discipline, it is hoped that the attention of the school committee will be constantly directed.

Before closing this report, which but for the shortness of the time allowed for its preparation, would have extended to other topics of interest, the committee would call the attention of the city council to the subject of truancy, or juvenile vagrancy. From information which has come before them, it appears, that there is in the city, a considerable number of vagrant boys, from the ages of six to sixteen years, who belong to no school. Their time is spent mostly in the streets, begging or pilfering, as opportunities present. They are growing up to habits of idleness and crime. It will be for the wisdom of the council to determine what measures, if any, can be adopted for their improvement.

All which is respectfully submitted,

ALEXIS CASWELL,	} <i>Sub Committee.</i>
ALEXANDER DUNCAN,	
STEPHEN T. OLNEY,	
EDWARD R. YOUNG,	

June 1st, 1846.

REPORT FOR 1847.

To the Hon. Council of the City of Providence.

The school committee of said city respectfully present their annual report. They have conducted the public schools in the city upon the same general system as in years past, and they desire to express their satisfaction with the faithfulness of the teachers employed by them, and the advance in useful knowledge which their pupils have made. They have now in operation thirty-eight schools, viz one high school, six grammar schools, eleven intermediate schools, seventeen primary schools, one grammar school for colored children, two primary schools for colored children, which are under the care of one superintendent, ten male instructors, and seventy-one female instructors, together eighty-two persons, employed in the public schools. The average number of pupils belonging to the schools during the past year, has been 5227, and the average attendance in good weather about 4500. The committee have drawn upon the city treasurer during the past year in payment of the expenses of the schools, orders amounting in all to \$29,288 35 Which is respectfully submitted in behalf of the committee.

THOMAS M. BURGESS, *President.*E. R. YOUNG, *Secretary.**City of Providence, June 3d, 1847.*

REPORT FOR 1848.

To the City Council of the City of Providence.

THE subscribers, having been appointed by the School Committee of the city of Providence, a Sub-Committee, for the purpose of preparing and presenting to the City Council their Annual Report on the Public Schools, respectfully submit the following:

The organization of the Committee was completed by the re-election of Thomas M. Burgess, as President, and of Edward R. Young, as Secretary. Two vacancies have occurred in the Committee during the past year, occasioned by the resignation of John F. Phillips, and William T. Dorrance, Esqs. They have been filled by the election of Rev. William J. Breed, and Dr. S. A. Arnold.

The meetings of the Committee have been generally well attended; and, although on some of the subjects discussed, and changes proposed, there has been a difference of opinion among the members, the greatest harmony has prevailed in our deliberations, and it is believed that the final action of the Committee has been for the best interest of the schools and of the city.

The gentleman who has so long and so ably filled the office of Superintendent, has presented to the Committee, at every quarterly meeting, a detailed report of the state of the schools, containing valuable suggestions, some of which have been already adopted and carried out, and some of which are referred to the consideration of the appropriate sub-committees. A permanent record is made of these reports, and they embody both a history of the labors, and a memorial of the industry of the Superintendent. It is but doing simple justice to say, that much of the harmonious action and efficiency of our school system is owing to his fidelity to the duties of his office.

The School Committee are made by the City Council the trustees of all moneys appropriated for the support of the public schools of the city; the superintendents of the several school districts with power to establish and alter the same, and authority to locate therein such new schools as may be created by the City Council, the guardians of all the property of the city invested in school-houses and estates, and the arbiters in all matters relating to the subjects, methods, and means of instruction in all the public schools.

Following out the general plan suggested by this brief but comprehensive enumeration of their powers and duties, contained in the ordinance in relation to public schools, the Report of your Committee will be confined to a brief account of what has occurred during the past year, in connection with these several departments of their action.

First, the expense of the public schools for the past year.

Your Committee would not be understood to admit, by commencing with this topic, that expense is the chief thing to be regarded in a system of public school education. On the contrary, it is their opinion, and it must be the opinion of every one who views the subject in a proper light, that expense is a consideration of comparatively minor importance, and that the best education which the existing state of human knowledge and civilization demands and affords, at whatever expense, is far preferable to any other, which, though nominally cheaper, is, in howsoever small a degree, inferior. The only questions to be entertained are, whether the amount demanded is warranted by the means of those who furnish it, and is expended in the most judicious and efficient manner. The first consideration will guide those who appropriate; the second, those who superintend the expenditure of what is appropriated. The expense of maintaining and of carrying on, among a rapidly increasing population, a system of public school education, based upon so broad a foundation, and active, with so generous aims as ours is, cannot be expected to diminish. There will be a gradual increase in the aggregate costs of instruction, but not necessarily a proportionate increase in the costs of instruction per scholar, as appears from the table published in the report of your Committee, in June, 1846.

Since that report, the financial year of the city has been changed. It now commences with March, instead of June. The expenditures for public schools for the financial year, ending on the first Monday of March, 1848, as appears from the report of the City Auditor, was \$36,518 25

For tuition, - - - - -	\$26,215 33
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Other expenses, - - - - -	10,102 92
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This sum, which is much larger than that of any preceding year, except the last, includes over five thousand dollars expended for the purchase of three lots of land for school-houses, and for the erection of a new school-house. The gross expenses of tuition have also been increased, on account of the opening of the new schools hereafter mentioned. So that the increase of the aggregate sum expended for public schools during the past year, is not owing to an increase in the regular annual expenses, but to an increase in the number of schools, and in the provisions for their accommodation and instruction.

Since the report of the Committee, made in June, 1846, there have been established four intermediate schools; one in the first district, one in the third district, one in the fifth district, and one in the sixth district; and three primary schools, one in Pond street, (colored,) one in the fifth district, and one in the sixth district. During the same period, two primary school-houses have been raised, and new stories have been put under them for the accommodation of intermediate schools, and two new school-houses and estates have been built and purchased, one in Hospital street, and one in Friendship street.

The school-houses and estates are all in good condition. A list of them, with the dimensions and situation of the lots, will be found in the valuable report of the City Auditor; and a minute and very interesting description of our public school-houses is contained in the report of the Superintendent, published in 1846.

Until the beginning of the present year, the school-rooms in many of the districts have been used for ward meetings at the state and city elections. This practice has caused many of the schools to be closed for several days in the course of the year, and has occasioned more wear than would result from the use of the rooms for legitimate purposes alone. Since the present year, except in one instance, the schools have been exempted from this inconvenience. Your Committee hope that for the future the city authorities will make such provisions with regard to the places of holding elec-

tions, as will make the educational and the elective franchises, in this respect, entirely independent of each other.

At the last meeting of the Committee, the schools were reported, by the different district sub-committees, to be generally in a flourishing condition; at the recent quarterly visitation, they not only sustained an examination creditable to both teachers and scholars, but the general spirit of the schools seemed to have received a new impulse, and to be directed towards a higher standard of excellence.

The number of pupils who have attended the schools has considerably increased during the past year, as appears from the following statistics:

No. in attendance last Summer term, (1847,) -	-	-	5681
" " Fall " (1847,) -	-	-	5831
" " Winter " (1848,) -	-	-	5927
" " Spring " (1848,) -	-	-	6177
Making the average attendance for the past year, -	-	-	5904

The plan of public instruction which the City Council have contemplated and provided for, is generous and comprehensive. Its aim is to give to all a thorough English education, and, to those who desire it, the preparatory training necessary for admission to the highest seminaries of learning. Our public schools are thus made the vestibule of the university; and our city may repay in her children the debt which she owes to the literary institution which crowns and adorns her heights, and tends to soften and relieve, by the mild influence of elegant letters, the rough contests of commercial prosperity.

The details of the subjects, methods, and means of instruction in the different grades of schools, from the primary to the high school, cannot be expected to make a part of this Report. There has been no change made in them during the past year. A partial change in certain branches of study has been proposed and discussed, and is now contemplated; but the project is not sufficiently matured to be stated here. It has always been the endeavor of the Committee to procure the best text-books, and the best teachers, and to provide all the necessary apparatus and means of instruction. It may be mentioned in this connection, that as aids both to scholars and teachers, a pair of Maltby's English Globes, for the High School, and sets of reference-books, maps, &c., for the schools generally, have been purchased within the past year, at an expense of about three hundred dollars.

During the vacation of one week, which followed the close of the last winter term in February, meetings for the purposes of discussion and mutual improvement, were held at the High School, by the teachers in the public schools, and others interested in the subject of education. The subjects more particularly attended to were reading and elocution. Mr. William Russell, and his son, Mr. Francis T. Russell, visited our city at one time, by invitation, and gave instruction in those subjects, both at the High School during the day, and at several of the churches in the evening; and many of our citizens enjoyed the pleasure of hearing and profiting by their finished exhibitions of the power and compass of the human voice. These meetings originated in a suggestion of the Superintendent; and the interest which the teachers took in them, proved that they regarded their office in the light of duty and self-improvement, and not of emolument only. The Committee believe that the manifest improvement in the schools during the last term, was owing, in no small degree, to these meetings, which they trust will be regularly held in future.

It is already known to the City Council, that, by their authority, the School Committee have introduced the study of vocal music into the public schools, and have made it a regular branch of instruction, and have employed a faithful and competent teacher, Mr. Jason White, at a salary of \$600 per annum. The Committee regard this as a valuable addition to the course of studies. The cultivation of the voice by singing, besides having an intimate connection with the arts of reading and elocution, has, both as a recreation and as an exercise, an important bearing on health, both of body and of mind.

On the subject of evening schools, the City Council have heretofore received a report of the action of this committee. The expediency of holding, during the fall and winter months, one or more public evening schools, for the benefit of those who could not attend during the day time, was referred to a special sub-committee, who reported against establishing such a school for the present.

Your Committee cannot avoid expressing here the opinion, that, while ample means are provided for the instruction of our increasing population, a matter equally, if not more important to the well-being of the community, ought to be immediately attended to. They cannot help regarding with interest, as being closely connected with the subject of education in this city, the proceedings of the City Council with regard to a House of Reformation. The unfortunate victims of early bad example, and corrupt association, should be prevented from ruining themselves, and from infecting society. If the vicious are not reformed as fast as the ignorant are enlightened, crime will but become doubly armed, when the unregulated passions are supplied with weapons of knowledge.

The results of the improved state of our public schools, are marked, both in the individual scholar and in the present generation of scholars. The amount of individual attainment is greater, and the general character and deportment have been elevated, and the increased interest of the community at large in the condition and in the further improvement of public education, is a proof that they will be ever ready to welcome and to appreciate in its behalf, every measure of judicious and permanent reform.

The great cause of congratulation in regard to our school system, in the opinion of your Committee, is that we have begun well, and laid a good foundation. We shall never be obliged to tear down, but only to build higher. The base is firm enough and broad enough to support the loftiest superstructure. Our future progress will not require a change, but merely a development of principles.

The perfectly educated man—the man who shall be the embodiment and the representative of the highest limit of human attainment in knowledge and in virtue—is yet far in the future, although not too distant to be the pattern and the aim of both scholars and teachers. Neither this nor the next generation may reach the goal. But the approach to it, though gradual, may be made sure. It will be soonest attained when all, and not a few only, shall enjoy the richest benefits of education and of Christian culture. And we may, without presumption, indulge the hope that, under the influences of our public schools, each fresh band of new-born spirits will catch an earlier radiance from the light of science, a deeper thrill from the spirit of humanity, and a diviner glow from the fountains of inspiration.

All of which is respectfully submitted,

SAMUEL W. PECKHAM, ESEK ALDRICH, FRANCIS E. HOPPIN, WILLIAM GAMMEL,	}	<i>Sub-Committee.</i>
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RULES AND REGULATIONS

(of the Public Schools of Providence, as revised and adopted Nov. 24, 1848.

BY-LAWS OF THE SCHOOL COMMITTEE.

ART. 1. Organization.—In the week succeeding the annual appointment* of the School Committee, in June, the Secretary for the year preceding, shall call a meeting of the new Committee for the purpose of organization. At this meeting the President and Secretary shall be chosen by ballot; and the President, having been duly sworn or affirmed faithfully to discharge the duties of his office, shall administer the same oath or affirmation to the members present, and to the other members as soon as they shall meet with the Committee.

ART. 2. Appointment of Standing Sub-Committees.—After the By-Laws have been read and adopted, the Committee shall, upon the nomination of the President, or of any other member of the Committee, elect the following Standing Sub-Committees, to hold their places during the year, viz:—An Executive Sub-Committee, a Sub-Committee on Qualifications, a Sub-Committee on Accounts, a Sub-Committee for the High School, and a Sub-Committee for each District; the whole School Committee being divided, with due regard to the number of Schools in each District, into as many District Committees as there are Districts, the High School being considered as a District in the division.

ART. 3. Chairmen of Sub-Committees.—The person first named on every Special or Standing Sub-Committee, shall be the Chairman thereof, and act as such until such Special or Standing Sub-Committee shall elect a Chairman; and all Special, as well as the Standing Sub-Committees, shall expire with the year.

OF THE PRESIDENT.

ART. 4. His Duties, &c.—The President shall take the chair at the hour appointed for every meeting of the Committee; and shall maintain the rules of order which are usually observed by deliberative bodies. In his absence the Secretary shall call the meetings to order, and a President *pro tempore* shall be elected by nomination, or, at the request of any member, by ballot.

ART. 5. Appointment of Examining Committees.—The President shall appoint one or more members of the Committee, and request the Secretary to inform them of the appointment, to attend the quarterly examination of each Primary and each Intermediate school; and he shall also appoint the Examining Committees to attend and conduct the quarterly examinations of the Grammar Schools, and of the different classes in the High School.

ART. 6. Annual Report to the City Council.—In case a Sub-Committee is not appointed for the purpose, the President shall cause a Report of the condition and expenses of the schools during the past year, and an estimate of the necessary expenses for the year ensuing, to be presented to the City Council on the first Monday in June annually. The Report shall be accompanied with an abstract of the record of the absences of members during the year, and of their excuses, as kept by the Secretary.

OF THE SECRETARY.

ART. 7. Roll called and Records read.—The Secretary shall call the

* In the city of Providence, the School Committee, consisting of thirty members, shall be elected by the City Council, at the commencement of the municipal year, and shall report to them whenever required.—*State Law, October Session, 1839, Sec. 5.*

roll of the members at the opening of every meeting, and mark all absences and excuses. He shall keep a full and fair record of all the proceedings of the Committee, and preserve on file all papers relating to the business of the same. He shall read at the opening of every meeting, except that held for the organization of the Committee, the records of the proceedings of the previous meeting. At the meeting for organization, the records shall be read as soon as the officers and sub-committees are chosen.

ART. 8. *Call of Regular and of Special Meetings.*—The Secretary shall send a notification of every regular or special meeting to the dwelling-house or place of business of each member of the Committee, at least one day previous to the meeting. Special meetings shall be called by the Secretary, at the request in writing of the President, or of any five members of the Committee.

ART. 9. *Chairman of every Sub-Committee to be notified, &c.*—He shall give notice to the Chairman of every Sub-Committee appointed, stating the commission and the names of the members associated with him.

ART. 10. *Bills and Orders to be transmitted to the City Treasurer quarterly.*—Immediately after each quarterly meeting of the Committee, the Secretary shall transmit to the City Treasurer such bills with orders upon the Treasury as the Committee may have allowed, together with a schedule of the bills.

ART. 11. *List of Committees, not having reported, to be read.*—The Secretary shall keep a list of all special and standing committees to which any subject may have been referred, and shall read the same at each quarterly meeting until said Committees shall report on the subjects so referred, or be discharged.

ART. 12. *Records, &c., open to inspection.*—The record of every meeting shall be made up as soon as may be after the close of the same; and the record-books and files of papers shall be at all times open to the inspection of the members of the Committee, and of the Superintendent.

OF STANDING SUB-COMMITTEES AND THEIR DUTIES.

ART. 13. *The Executive Sub-Committee.*—This Committee shall consist of three members. They shall advise the Superintendent in the discharge of the duties of his office whenever he may refer cases to them. They shall direct or authorize him to purchase all necessary furniture and fuel for the use of the schools, and to cause all needed repairs to be made in a proper manner.

ART. 14. *The Sub-Committee on Qualifications.*—This Committee shall consist of five members. They shall examine candidates for the places of teachers, and make appointments on trial, subject to the approval of the General Committee. The Chairman of this Sub-Committee shall, at each quarterly meeting, report in writing to the General Committee the names of all persons who have been appointed during the recess, and have been successful in teaching. During the third quarter in each year they shall examine the list of teachers in the schools, and make out a Report containing the names of those who ought, in the opinion of said Committee, to be nominated for re-election at the annual meeting, and they shall give at least one quarter's notice to those who have not been successful teachers, that they will not be nominated for re-election. This Sub-Committee shall, from time to time, revise the course of studies in the schools, and recommend such changes of the books used in the same, as they may deem expedient.

ART. 15. *The Sub-Committee on Accounts.*—This Committee shall consist of two members, who shall examine all bills against the School Department presented to them by the Superintendent. They shall report their examination of accounts at each regular quarterly meeting of the General Committee, who shall allow no account which has not been audited by this Sub-Committee. All bills allowed and the schedule of the same collectively shall be countersigned by this Committee, or by the President.

ART. 16. *District Committees.*—It shall be the duty of every District Committee to exercise a general supervision over all the schools in the District, and of each member to visit all the schools in the same at least once in a quarter, unless unavoidably prevented.

ART. 17. *Chairman's Quarterly Report.*—The Chairman of each Sub-committee for a District shall at every regular quarterly meeting of the General Committee, report any matters deemed of sufficient importance to be noted, relating to the schools in his district during the preceeding quarter.

ART. 18. *Suspension of a Teacher.*—These Sub-Committees are empowered, in their respective Districts, to suspend any teacher for negligence, disobedience of the school regulations, or other reasonable cause. In such case they shall give immediate notice of their proceedings to the Superintendent, and shall bring the case to the attention of the General Committee at their next meeting, for such further action as may be necessary.

ART. 19. *Exclusion and Expulsion of Pupils.*—Each District Committee shall immediately take into consideration every case reported by the Superintendent to its chairman, of a pupil whose conduct is such, either in or out of a school, that he is an unfit member of the same, or whose example is injurious to the other pupils: (See Articles 29 and 49,) and, if in their opinion he has been duly admonished, and reformation appears to be hopeless, it shall be the duty of the Sub-Committee to exclude, for a definite time, or to expel, every such pupil from the school.

ART. 20. *Restoration of Excluded or Expelled pupils.*—It shall also be their duty on application of the parent or guardian of a pupil temporarily excluded by a principal teacher, for any gross misconduct, to give immediate attention to the case; (See Art. 49,) and, if the decision of the teacher be confirmed, the pupil shall be excluded for a definite time, or expelled as the necessity of the case may require. If the temporary exclusion by the teacher be deemed a sufficient punishment, the Sub-Committee shall direct that the pupil be re-admitted to the school. During the exclusion, and after expulsion, such pupil shall not be admitted to any other public school; and, after expulsion, no pupil shall be restored without the consent of the General Committee.

GENERAL REGULATIONS OF THE COMMITTEE.

ART. 21. *Commencement of School Year and Vacations.*—The school year shall begin on the Monday next after the first Wednesday in September, and shall be divided into four quarters; the first quarter shall close on the Friday preceding "Thanksgiving week," and be followed by a vacation of one week; the second and third quarters shall be each twelve weeks, and each be followed by a vacation of one week; and the fourth quarter shall be so many weeks as to make in all forty-five school weeks in each year, and shall be followed by a vacation till the beginning of the next school year.

ART. 22. *Quarterly Meetings.*—Regular quarterly meetings of the School Committee shall be held on the last Friday in each quarter, when they shall confer on the progress and condition of the several schools, and shall transact all such business relating to them as they may deem expedient.

ART. 23. *Quarterly Examinations of all the Schools.*—The Examining Committees (see Art. 5,) shall attend the quarterly examination of the primary and the intermediate schools on the afternoon of the day preceding the close of each quarter. The General Committee shall meet at half past eight o'clock, in the forenoon of the last Friday in each quarter, and act on the bills for the teachers' salaries, and then the Examining Committees shall proceed to the examination of the grammar schools. The High School shall be examined by the General Committee, divided into six Examining Committees, in the afternoon of the same day, unless otherwise ordered.

These Examining Committees shall report to the General Committee, at the quarterly meeting, the number of scholars present at the examinations, and the condition of the schools.

ART. 24. *Annual Meeting, Election of Teachers, &c.*—The Annual Meeting shall be the regular quarterly meeting in August. At this meeting the appointment of the Superintendent and that of every teacher shall expire, and a new election shall then take place. The Chairman of the Sub-Committee on Qualifications shall, at this meeting, present a report containing the names of those persons who, in the opinion of said Committee, ought to be re-elected. When this Report has been read to the General Committee, the persons therein recommended shall be considered candidates regularly nominated for their respective offices. An election may then take place without ballot. But on motion of any member, the election of Superintendent, or of any teacher, shall take place by ballot.

ART. 25. *Teachers' continuance in office and their resignation.*—The Superintendent and teachers elected at the annual meeting, and all appointed by the Committee on Qualifications, at any time during the year, and approved by the General Committee, shall hold their offices till the next annual meeting, unless sooner removed for sufficient cause by vote of the Committee. But any teacher who may wish to resign his or her office, may do so at the end of a quarter, provided at least one month's notice of the intention be given in writing to the Superintendent. A teacher, who, without the consent of the Committee on Qualifications, shall withdraw at any other time, or without notice as aforesaid, shall forfeit all compensation to which he or she may be entitled at the time of leaving, or such part thereof as said Committee may specify.

ART. 26. *Annual examination of the Secretary's Records, &c.*—At the annual meeting a sub-committee shall be appointed to examine the Secretary's records and files, to see whether they are kept in proper order, and shall report at the next meeting.

OF THE SUPERINTENDENT.

ART. 27. *Design of the Office.*—For the more convenient discharge of the duties assigned bylaw to the School Committee, and to aid them in the performance of the same, the office of Superintendent of public schools has been created. The Superintendent shall devote himself exclusively to the business of his station.

ART. 28. *General powers and duties of the Superintendent.*—He shall act under the advice and direction of the General Committee, and of the Executive Committee, and, under their advice and direction, shall have the superintendence of all the public schools, school-houses, estates and apparatus. It shall be his duty to exercise a personal supervision over all the schools, to visit each of them as often as his other duties will reasonably permit, and carefully examine its progress and condition; to pay particular attention to the classification of the pupils, and to the apportionment of the prescribed studies among the classes. In passing daily from school to school he shall endeavor to transfer improvements and to remedy defects. He shall also advise and direct the teachers, in relation to the course of instruction and discipline in their respective schools, and see that the prescribed studies are carefully pursued, and that the best methods of discipline are maintained in a proper manner; for which purpose, he may exercise the full power and authority of the School Committee in enforcing and carrying into full effect all their rules, regulations and orders in relation to discipline and instruction in the schools. He shall exert his personal influence with teachers, parents and children, in order to secure as general and regular an attendance of the pupils as possible. He shall continually endeavor to raise the character of every school to the standard of the best schools of the same description; and shall keep himself acquainted with the progress of instruction and discipline in other places, in order to secure a progressive advancement in the condition of the public schools in this city.

ART. 29. *Bad Conduct of Pupils, &c.*—Whenever the principal teach-

er in any school shall report to the Superintendent the name of a pupil whose conduct is considered such, either in or out of school, that he is an unfit member of the same, or whose example is injurious to the other pupils, he shall examine the case without delay, and if, in his opinion, the pupil has been duly admonished, and reformation appears to be hopeless, he shall suspend every such pupil *temporarily*, and shall report the case immediately to the Chairman of the District Committee for their action. (See Arts. 19, 49.)

ART. 30. *Aiding Sub-Committees &c.*—The Superintendent shall at all times render such assistance to the Sub-Committees as may be required by them. All bills for the expenses of the school department must be presented to him, and he shall, *before* the last Wednesday in each quarter, examine them and make a schedule of the same for the use of the Sub-Committee on Accounts, and shall call their attention to all bills and items, that in his opinion, need a special examination.

ART. 31. *Office Hours, Supplies, Repairs, &c.*—He shall keep regular office hours,* other than the school hours, at a place provided for that purpose; which shall also be the general depository of the books and papers belonging to the school department. He shall purchase and have charge of the text books provided for indigent children, and of the distribution thereof. He shall furnish to the order of the teachers all necessary blanks, registers, and blank-books, and text books, for their own use and the use of indigent pupils. He shall cause a thermometer to be placed in each school room for the healthful regulation of the temperature in the same, and shall furnish all necessary school furniture, apparatus and fuel, and see that all needful repairs are properly made.

ART. 32. *Quarterly Meetings of Teachers.*—He shall call together the teachers once at least in each quarter, to interchange their views upon the various points of instruction and discipline; in order to create harmony of action, and to cause the whole system to tend toward a uniform standard of excellence, to the end that all the children in this City, who are instructed in the Public Schools, may obtain the best education which these schools can be made to impart.

ART. 33. *Permits Granted.*—The Superintendent is authorized to give permits to pupils in certain cases to enter school at any time during the quarter, and also to give permits to pupils residing in one District to attend school in another, when there are good and satisfactory reasons for the change. (See Art. 63.)

ART. 34. *Systems of Penmanship, &c.*—The Superintendent with the advice of the Committee on Qualifications, shall direct the use of such system or systems of penmanship in the Intermediate and Grammar Schools and in the High School as he may deem expedient.

ART. 35. *Employment of Substitutes as Teachers.*—In case of the sickness of teachers, or other necessary cause of absence, the Superintendent shall see that suitable substitutes are employed during the detention from their schools, and no one shall be employed as a substitute without his approbation. When a vacancy in the place of a teacher shall occur during the quarter, the Superintendent is authorized to make a temporary appointment to fill the vacancy till the close of said quarter. (See Art. 52.)

ART. 36. *Quarterly and Annual Reports.*—The Superintendent shall, at every regular quarterly meeting, make a Report in writing of the number of pupils attending the several schools during the quarter, of the number engaged in the different branches of study in the same, and containing such information relating to the condition of the schools, and such plans for the improvement of the same, as he may have to communicate. A general Report shall also be prepared by him, at the close of the school year, for publication.

ART. 37. *Transfers of Pupils.*—Whenever at the beginning of a quarter, or other time, there may be vacancies in any school of a higher grade

* The Superintendent takes particular pains to be in his office, in the High School, EVERY DAY, between 12 and 1 o'clock, for the purpose of attending to any business relating to the Public Schools.

than the Primary, and transfers appear to the Superintendent to be necessary to promote the general welfare of the schools, he shall cause the most advanced class in the next lower grade of schools, or so many of them as may be candidates for the vacancies, to be examined, and a selection to be made of such a number of those found best prepared for promotion as will fill the vacancies in the higher school; thus causing all necessary transfers of pupils from the Primary to the Intermediate Schools, and from those to the Grammar Schools, and from them to the High School. (See Art. 68.)

ART. 38. *Principle of the High School.*—The Superintendent shall also act for the present as Principal of the High School, and see that the course of studies prescribed for that school is so arranged that each class shall pursue those branches which are best adapted to the age, the attainments, and objects of the pupils.

He shall see that all necessary rules and regulations for the proper internal management of the High School are adopted and made known to all the teachers, who are required to act with a careful and energetic co-operation with him, in order to increase the facilities for learning, and to raise the standard of scholarship and of moral character among the pupils. (See Art. 67.)

OF TEACHERS AND THEIR DUTIES.

ART. 29. *Teachers to know and to observe the Regulations, &c.*—All teachers in the Public Schools are required to make themselves familiar with the provisions of these Regulations, and especially that portion of them relating to their school duties. They are also required to take special pains to observe and carry into full effect all Rules, Regulations and directions of the School Committee and of the Superintendent in relation to the instruction and discipline of their respective schools; and to attend punctually and regularly all the quarterly meetings held by the Superintendent, and also all the meetings of the Teachers' Institute, when the same is held in this city during the winter vacation.

ART. 40. *School Hours.*—All the Public Schools shall begin their morning session at 9 o'clock, A. M., and close at 12 M. throughout the year. They shall begin their afternoon session at 2 o'clock, P. M., and close at 5 o'clock, P. M., except in the "short days," when they shall continue as long as the light permits. *Exceptions.*—The girls department in the High School is permitted to have one session of six hours, daily with suitable times for recesses. The schools for colored children are permitted to have the same arrangements for the winter quarter only.

ART. 41. *Teachers required to be at their School Rooms early.*—All the teachers in the Public Schools are required to be at their respective school-houses at least fifteen minutes before the specified time for beginning school in the morning and in the afternoon, and to open their respective school rooms for the reception of both boys and girls subject to all the rules of order for school hours as soon as they enter the rooms.

ART. 42. *The Principle Teacher to cause the Bell to be rung.*—The principal teacher of the school of highest grade in each school house shall cause the bell to be rung from three to five minutes beginning precisely at fifteen minutes before 9 o'clock, A. M., and before 2 o'clock, P. M.; and shall also cause it to be tolled from three to five minutes ending at the appointed time for beginning school in the morning and afternoon.

ART. 43. *Opening Schools.*—All the schools shall be opened every morning, as a devotional exercise, and with prayer at the option of the presiding teacher.

ART. 44. *Teachers must attend to their school duties carefully and regularly.*—The teachers of the several schools shall devote themselves exclusively to the duties of their office. They shall daily examine the lessons of their various classes, and shall prepare themselves, with care, to instruct all their pupils without partiality in those branches of school studies which their respective classes may be pursuing. In all their intercourse

with their scholars they are required to strive to impress on all their minds, both by precepts and examples, the great importance of continued efforts for improvement in morals, in manners and deportment, as well as in useful learning. They are required carefully to maintain good order and discipline, and to follow the course of instruction prescribed by the Committee, permitting no books to be used in the schools but such as the Committee shall designate. No teacher shall keep a private school, nor instruct a private class.

ART. 45. *Classifications of Pupils.*—The teachers in each school shall put the pupils of the same into separate classes, according to their attainments; and shall teach them such portions of the prescribed studies, as, in their judgement, under the advice of the Superintendent, it may be most suitable for each class to pursue. Each pupil shall be confined to the studies of his class, unless, in particular cases, an exception shall be made by the advice or direction of the Superintendent.

ART. 46. *Supervision of Pupils.*—All teachers are required to exercise a careful supervision over their pupils during school hours, both while in the school room and while out at recess, in order to prevent all improper conduct on the school premises.

ART. 47. *Extension of Jurisdiction, &c.*—The principal teachers are authorized, when they think the proper management of their schools requires it, to extend their discipline to cases of the misconduct of their pupils while going to, or returning from school.

ART. 48. *Discretion and Advice in Discipline.*—It is strictly enjoined upon all teachers in the schools to avoid all appearances of *indiscreet haste* in all cases of their school discipline, and in the more difficult cases that may occur in the discharge of their duties to apply to the Superintendent for advice and direction.

ART. 49. *Pupils reported to Superintendent, or excluded.*—Whenever a principal teacher shall deem any *particular* or *habitual* misconduct of a pupil such, that his example is injurious to other pupils, he may report him to the Superintendent, (See Arts. 19, 29,) and for violent opposition, or gross misconduct, he may exclude a pupil from school for the time; and in all cases of exclusion shall forthwith give information in writing of the cause thereof to the parent or guardian, and to the Superintendent.

ART. 50. *Assistant Teachers, &c.*—In all matters relating to the government, instruction, and management of a school, the assistants shall obey the directions of the principal. In the absence of the principal teacher, the assistant who has been the longest time in the school shall assume its management; or the oldest where they are of the same standing.

ART. 51. *Care of School Property, Supplies, &c.*—All teachers are required to take daily care that school-houses, the furniture and apparatus in the same, as well as the out-buildings, fences and all the property belonging to the school estates, be not unnecessarily defaced or injured in any manner by the scholars, and also required to give prompt notice in writing to the Superintendent, of all repairs and supplies that may be needed.

ART. 52. *Absence of Teachers, Substitutes, &c.*—Every teacher who, on account of personal sickness or other cause, may be obliged to be absent from school more than *one day* at any time, shall give immediate notice thereof to the Superintendent, stating how long he or she will *probably* be detained from school, and also naming, if possible, some suitable person who may be employed as a substitute. All substitutes must be employed at the expense of the absent teacher, and none without the approbation of the Superintendent. (See Art. 35.)

ART. 53. *Ventilation of School Rooms.*—The teachers shall give vigilant attention to the ventilation and temperature of their rooms, causing those that have been occupied to be *opened* and *aired* each morning and afternoon at the times of recess, and at the end of each session. They are required to take *special pains* to secure such *continual* changes of the air in the rooms as will prevent it from becoming impure and unhealthful between the times for opening and airing the rooms; and they shall care-

fully ascertain the temperature of their rooms by the thermometers, and use all proper means to avoid those injurious extremes of heat and cold which negligence might induce.

ART. 54. *Register, and the entries to be made in it.*—The principal teacher in each school and each teacher in the High School shall record in their respective registers the names, ages, and dates of entrance of the scholars; and shall make such other entries as shall exhibit a correct view of their absences, their conduct in school and the progress made in their studies. A Report of the same shall be transmitted to the parent or guardian of each scholar, except those in the Primary Schools, at least once a month, with a request that it be returned with the name of the parent or guardian written upon it, in acknowledgement of its receipt. The register shall be at all times open to the inspection of the members of the School Committee and of the Superintendent.

ART. 55. *Roll called each half day.*—The principal teacher in each school shall enroll the names of scholars as soon as they enter the same, and have the roll called in the morning and afternoon of each day, and all absences carefully marked, in order that the average attendance given in the quarterly Report to the Superintendent may be correct.

ART. 56. *Teachers' quarterly Report to the Superintendent.*—The principal teacher in each school, and each teacher in the High School, shall severally make a Report in writing to the Superintendent, one week before the termination of each quarter, stating the number of pupils admitted, the average number belonging to the school during the quarter, and the average attendance, and containing such other information as may be necessary to set forth the general condition of their schools, together with any suggestions which they may have to offer for the improvement of the same. They shall append to each Report the number of times each teacher in said school has been absent or late during the quarter, with the reasons for such absence or lateness.

ART. 57. *Books belonging to the Public Schools.*—The principal teacher in each school shall enter upon the catalogue, kept in the register, the name of every book placed in "the Library of Reference Books" in his or her room for the use of the teachers, and scholars, and also that of every text book to be lent to indigent pupils, and shall in each quarterly Report to the Superintendent state the number and condition of said books.

ART. 58. *Teachers' Reports to Examining Committees.*—The principal teacher in each school, and each teacher in the High School, shall make out for the use of the Examining Committee at each quarterly examination, a *written plan* or order of *their school exercises* for the quarter, giving a correct representation of *all the classes* in their respective schools; and also of the portions of the text books that each class has studied during the quarter, stating which have been daily exercises—and how often each other exercise, whether confined to a class, or more general, has received attention.

The said teachers may, if they think best, report in writing to the Examining Committee, the names of such pupils as have been distinguished during the quarter for good conduct and for proficiency in their studies, and also the names of those who have been grossly negligent in attending school, or inattentive to their studies, or guilty of any violations of these regulations, or of other willful offences.

ART. 59. *Recesses.*—The principal teacher in each school shall allow a recess for all the pupils in the same *not exceeding fifteen minutes* in each half day; except in the Primary Schools, in which there may be, at the discretion of the Principal, two recesses in each half day, not exceeding ten minutes each.

ART. 60. *Making Fires, Sweeping and Cleaning.*—The principal teacher in each school room shall, for the compensation allowed by the Committee, employ some suitable person to make fires in the same when necessary, and shall see that this important work is properly and economically done, and also shall hire some competent person, for the allowed compensation, to sweep the room and its entries *daily*, and dust the blinds,

seats, desks and other furniture in the same, and to clean the same from time to time during the quarter, and shall see that this work is neatly and properly done.

ART. 61. *School Rooms not to be used.*—The teachers shall not permit the school rooms under their charge to be used for any purpose whatsoever other than the instructions prescribed in these Regulations, unless by order of the City Council, or of the School Committee.

ART. 62. *Subscription papers &c.*—No teacher shall allow a subscription paper for any purpose whatever to be introduced into a public school; nor shall any contribution be permitted to be made in the same by the pupils.

ART. 63. *Pupils not to be admitted.*—No teacher shall admit as a pupil into any Public School a child whose *residence is out of the city*, or who may be *boarding* here, or staying here with friends, *chiefly* for the purpose of attending a public school. Nor shall any teacher admit into his or her school, as a pupil, any child that resides out of the district for which said school is established, unless by a *written* permission given by the Superintendent.

ART. 64. *Teachers to visit other Schools.*—Every teacher is requested to *spend one half day* in each quarter, in visiting one or more schools of the same grade as that in which he or she may be engaged, for the purpose of observing the discipline and modes of instruction in the same.

ART. 65. *All Scholars must have Books, &c.*—The principal teacher of a school shall not permit a scholar to remain in the same more than one week, unless such scholar be furnished with the books of his or her class prescribed in these Regulations.

ART. 66. *Books for indigent children.*—If the parents or guardians of any pupils in a school shall inform the Principal that they are unable to furnish their children with the required school books, and shall also present *satisfactory proof* of their inability or poverty, the Principal shall send a written order to the Superintendent, specifying the books needed. These books shall belong to the school and be only lent to indigent pupils to be returned to the principal teacher at or before the close of every quarter or whenever the pupil may leave the school.

ART. 67. *Duties and Powers of Assistants.*—All assistant teachers shall apply to the Principal for advice and direction in all instances of unusual difficulty in the government of their pupils, the management of their classes or in any other school duties. They shall at all times render a prompt and energetic co-operation with the Principal in carrying into effect all the school regulations and also such rules for the proper management of the scholars as may have been adopted. They shall report to the principal the names of all scholars who may have been guilty of any gross misconduct while under their care, and in no case shall they inflict corporeal punishment on a pupil without the approbation of the principal, nor shall they expel or exclude, or even dismiss for a short time, a disobedient pupil, but shall refer all cases requiring such measures to the principal who is responsible for the proper discipline of the school.

ART. 68. *Examination and Promotion of Pupils.*—The principal teachers in each grade of schools except the Primary, shall, in the beginning of the first week in each quarter, examine, under the direction of the Superintendent the candidates for promotion to the next higher grade, and under his advice shall select so many of those who may be best qualified for promotion as the true interests of the schools concerned may require, and admit them to their respective schools. (See Art. 37.)

OF SCHOLARS.

ART. 69. *Object of the Schools.*—The Public Schools being established for the general benefit of the community, all children of the inhabitants of the city, and others who may be admitted thereto, under the school regulations, shall receive free instruction without preference or partiality,

and with strict attention to their morals, deportment and manners, as well as to their improvement in learning. (See Art. 44.)

ART. 70. *Times for admission of Pupils.*—During the first week in each quarter, and on the first Monday in every calendar month, any child, living in the city, and in *all respects qualified*, may enter any Primary, Intermediate or Grammar School, by applying to the teachers at the school house.

ART. 71. *Punctual and regular attendance.*—All scholars are required to be in their respective school rooms a few minutes *before* 9 o'clock in the morning, and *before* two o'clock in the afternoon, and to be *regular* in their daily attendance, and obedient to their teachers, and to obey the school regulations.

ART. 72. *Scholars required to remain in school till the hour of closing.*—No scholar shall be permitted to leave school before its close for the purpose of attending to any music lessons or writing lessons, or for any other cause whatsoever, except that of sickness or some pressing emergency. No pupil shall leave the school room in school hours, or the yard at recess, without permission from a teacher.

Whenever any scholar shall leave in school hours, whether sent for or called for by parents or others, said pupil shall be marked as absent for that half day. But if a child is *really* sick and obliged to leave school before the close of the session, it shall not be marked as an absence.

ART. 73. *Conduct of the pupils.*—Good morals being of the first importance, and essential to their progress in useful knowledge, the pupils are strictly enjoined to avoid idleness and profanity, falsehood and deceit, and every wicked and disgraceful practice, and to conduct themselves in a sober, orderly and decent manner, both in and out of school, and while going to and returning from the same.

ART. 74. *Cleanliness of pupils.*—Scholars are required to come to school with clean hands and face and clothes, and hair properly combed. No child who comes to school without proper attention having been given to the *cleanliness* of his person and of his dress, or whose clothes are not properly repaired, shall be permitted to remain in school, but shall be sent home to be put in proper order for school.

ART. 75. *Pupils liable to pay for all damage done to school property.*—Every pupil who shall, *accidentally* or *otherwise*, injure any school property, whether fences, gates, trees or shrubs, or any building or any part thereof, or break any window glass, or injure or destroy any instrument, apparatus or furniture belonging to the school, shall be liable to pay in full, for all the damage he has done.

ART. 76. *Use of bad language, &c., prohibited.*—Every pupil who shall, any where on or around the school premises, use or write any profane or unchaste language, or shall draw any obscene pictures or representations, or cut, mark or otherwise intentionally deface any school furniture, or buildings inside or out, or any property whatsoever belonging to the school estate, shall be punished in proportion to the nature and extent of the offence; and shall be liable to the action of the civil law.

ART. 77. *Rules relating to absence.*—Every pupil in any Public School, who shall be absent from the same one half day or more, shall, on his return to school, bring to the principal teacher an excuse from the parents or guardians, stating how many half days the child has been absent from school, at their *request*, or with their *consent*, or at least with their *knowledge*. Any pupil who, having been absent, shall neglect, decline or fail to bring such an excuse, shall be liable to be punished for a misdemeanor.

Any pupil who shall be absent from any school (except the High School,) five half days in four successive weeks, without rendering a satisfactory excuse to the principal teacher, may be excluded from school for the next two school months.

Every excuse shall be received by the teachers as satisfactory in which it shall be stated that the pupil has been absent for reasons satisfactory to the parent or guardian.

Any scholar who shall be absent from a quarterly examination of the

school which he or she attends, shall not be permitted to attend said school during the next quarter, unless satisfactory proof be presented to the principal teacher, that the child was not absent for the purpose of avoiding the examination.

OF SCHOOLS.

ART. 78. *Number and description of the Public Schools.*—There are, at present, established in the City, forty Public Schools, in which eighty-eight teachers—twelve males and seventy-six females—are engaged in the instruction and government of about six thousand pupils.

These Schools shall be divided into four grades, viz:

1st. Primary Schools,	3d. Grammar Schools,
2d. Intermediate do.	4th. High School.

PRIMARY SCHOOLS—FIRST GRADE.

ART. 79. There are now established in the city *twenty Primary Schools*. These schools are designed for pupils from four years of age to seven, according to their advancement in learning. Each school shall be under the immediate government and instruction of two female teachers, a principal and an assistant. The teachers in these schools are required to give their pupils daily moral instruction, of a familiar kind, suited to their age, and also daily exercises in vocal music, besides teaching the elements of *Reading, Spelling and Arithmetic*.

ART. 80. *Admission of Pupils.*—The teachers are strictly forbidden to admit as a pupil into a Primary School any child that has not attained the age of four years.

ART. 81. *Text Books.*—The books used for instruction in the Primary Schools shall be the following:

Emerson's Primer.

Palmer's Moral Instructor, Part I.

Bumstead's First School Book.

" Second Reader.

Davies' Table Book or Primary Arithmetic.

Worcester's Comprehensive Dictionary, to be used by the teachers.

Portions of the Scriptures shall be read daily in these schools by the presiding teacher, for the moral and religious instruction of the pupils.

INTERMEDIATE SCHOOLS—SECOND GRADE.

ART. 82. There are at present *twelve Intermediate Schools* established for children from six or eight to nine or ten years of age. Each of these schools shall be under the instruction and management of two female teachers, a principal and an assistant, who are also required to give their pupils moral instruction daily, and also daily exercises in singing under the advice of the teacher of vocal music. The scholars in these schools shall advance progressively to more difficult lessons in *Reading Spelling and Arithmetic*, and begin to take lessons in *Writing and Geography*.

ART. 83. *Admission of Pupils.*—No child shall be admitted as a pupil into an Intermediate School unless regularly transferred, or found, upon an examination by the teacher, to be qualified to join the lowest class therein.

ART. 84. *Text Books.*—The books used for instruction in the Intermediate Schools shall be the following:

Tower's Gradual Reader.

Palmer's Moral Instructor, Part II.

Davies' First Lessons in Arithmetic.

Fowle's Common School Speller.

Bumstead's Third Reader.

Mitchell's Primary School Geography.

Johnson & White's Music Book.

The Columbian Penman and Writing Book.

Worcester's Comprehensive Dictionary.

Portions of the Scriptures shall be read daily in these schools, by the presiding teacher, for the moral and religious instruction of the pupils.

GRAMMAR SCHOOLS—THIRD GRADE.

ART. 85. There are now established in the city *Seven Grammar Schools* for the instruction of scholars from nine or ten years old to twelve or fourteen. Each Grammar School, except the one for colored children, shall be under the government and instruction of a master and two or three female assistants. Instruction in *vocal music* shall be given in these schools by a professional teacher, employed specially for that purpose.

ART. 86. *Admission of Pupils.*—No child shall be admitted as a pupil into a Grammar School unless regularly transferred, or found upon an examination by the master, to be qualified to join the lowest class therein.

ART. 87. *Branches Taught.*—In these schools the scholars shall use text books which present more enlarged views of the several branches they have already begun to study, and with such remarks and illustrations as the teachers throw around the various topics of study, the pupils shall continue their exercises in *Reading, Writing, Arithmetic and Geography*, and commence *English Grammar*, with frequent exercises in *Writing Sentences* and the *History of the United States and General History*.

ART. 88. *Text Books.*—The books used in the Grammar Schools shall be the following:

Palmer's Moral Instructor, Part III. Goodrich's Common School History. Pierpont's National Reader. Pierpont's American First Class Book. Smith's Quarto Geography. Davies' School Arithmetic. Wilson's History of the United States. Farnum's English Grammar. Gallaudet & Hooker's Illustrated Definer. Wayland's Moral Science (abridgement.) Fowle's Common School Speller. Worcester's Comprehensive Dictionary. Johnson & White's Music Book. The Columbian Penman and Writing Book. Farnum's Practical Penman and Writing Book.

Portions of the Scriptures shall be read weekly, by all the classes of both sexes, for moral and religious instruction.

There shall also be exercises in declamation at suitable times, as may be directed by the Superintendent.

HIGH SCHOOL—FOURTH GRADE.

ART. 89. *Number of Teachers.*—The High School, consisting of two separate departments—one for boys and one for girls, shall be under the government of a Principal, and three male and three female teachers, and thorough instruction shall be given therein in the higher branches of an English education; and, at the request of parents or guardians, instruction shall be given in the preparatory branches of a classical education, in the boys' department.

ART. 90. *Pupils admissible to the High School.*—No child shall be admitted as a pupil to the High School, who is not qualified immediately to enter upon the course of studies pursued therein.

No child who shall not be a pupil of a Grammar School shall be admitted to the High School, when there is a sufficient number in the Grammar Schools qualified for admission therein. But, whenever there shall not be a sufficient number of such candidates, any child, living in the city, if qualified, may be admitted, without having passed through a Grammar School.

ART. 91. *Qualifications for admission—ground of preference in admission.*—The candidates must be well versed in the studies pursued by the highest classes in the Grammar Schools. The teachers who, under

the advice and direction of the principal, shall be the examiners, shall admit those candidates who are best qualified to fill the vacancies in the High School, giving a *preference*, other qualifications being equal, to those who have been longest in the Grammar Schools.

ART. 92. *Examinations and admissions to fill vacancies.*—Whenever vacancies shall occur during the year, the pupils may be admitted to fill them in the first week of each quarter; and they must be found qualified, upon examination, to take the advanced standing for which they apply. The rule of preference before provided, in favor of candidates from the Grammar Schools, shall be observed.

ART. 93. *Rules relating to absence from the High School.*—Whenever any pupil in this school shall have been absent from the same *five days*, his or her teacher shall immediately report the case and send the pupil to the principal, and if said absence was in his opinion *unavoidable*, he shall give the pupil a permit to continue in school; but if all or any part of said absence was in his opinion *unnecessary*, then he shall send the pupil having been thus absent to the Committee on the High School, who shall hear the reasons for the absence, and grant or refuse a permit to continue in school, as they may think best.

ART. 94. *Number of Classes.*—There shall be three classes in each department in the High School, a Junior, a Middle, and a Senior Class, the studies of each class shall occupy one year. The numbers in the classes shall be as nearly equal as may be convenient, and no pupil shall remain in the school more than three years without permission from the School Committee.

ART. 95. *Branches Taught.*—The branches taught in the High School shall be the following: Reading and Writing: Ancient and Modern Geography; Elements of History, Ancient and Modern; History of the United States, and the Constitution of the same; Grammar and Rhetoric, with exercises in composition and declamation; Logic and Intellectual Philosophy; Moral Philosophy and Political Economy; Natural Theology and the Evidences of Christianity; Arithmetic and Book-Keeping; Algebra and Geometry; Trigonometry, with its applications to Surveying, Navigation, Mensuration, &c.; Natural Philosophy and Astronomy; Animal and Vegetable Physiology, and Chemistry; and Linear and Practical Drawing: the preparatory branches of a classical education.

Each class in the school shall have a weekly exercise in reading from the Scriptures, for moral and religious instruction.

ART. 96. *Lectures to be given.*—The principal of this school shall give brief illustrative lectures on the different branches of Natural Science: and also, in familiar lectures, exhibit to the pupils an outline of the political organization of this State, and of this City and of the United States.

COLORED SCHOOLS.

ART. 97. *The two Primary Schools*—These schools shall be under the care and instruction of a principal and an assistant when necessary. All the regulations pertaining to the other Primary Schools apply to these. The course of study and the books used shall be the same.

ART. 98. *The Grammar School.*—This school shall be under the instruction and government of a master, and a female assistant when necessary. The course of study and the text books used in this shall be the same as in the other Grammar Schools, and the regulations applicable to them shall also apply to this.

HOLIDAYS.

ART. 99. *Holidays for all the Schools.*—The following holidays shall be granted alike to all the Public Schools, viz:—Every Saturday, days of Public Fast, Christmas day, and the day of the celebration of American Independence.

ART. 100. *Schools not to be dismissed without permission.*—On no other day shall a school be dismissed without permission from the General Committee, except in cases of emergency, when the Superintendent shall have power to dismiss a school.

NORTH PROVIDENCE.

REPORT OF THE SCHOOL COMMITTEE FOR 1848.

THE school committee of the town of North Providence respectfully submit to the town the following report :

The amount of money placed at the disposal of the committee for the support of public schools during the year ending the first Monday in June, 1848, is as follows :

Received from the State appropriation,	\$982 82
“ “ “ Town “	2000 00
“ “ “ Registry Tax,	289 60

Total amount of school money for the year, \$3272 42

This sum has been divided among the several districts according to law.

The sum expended thus far during the year, amounts to \$3137 22, leaving a balance of \$135 20 still in the hands of the town treasurer. This balance is, however, all due to those districts whose bills have not yet been presented.

It is well known that during a few years past, an increasing interest has been manifested in this, as in other New England States, in the cause of education. In furtherance of this feeling, the school committee laid before the town, at its last June meeting, a printed report,* strongly urging the necessity of some reforms in our school system, among which were a larger appropriation of money, and the appointment of a visiting committee, whose duty it shall be to superintend the public schools. The town partially complied with the suggestions of the committee. The school appropriation was increased four hundred dollars, which, however, was but a slight increase compared with the increased number of children. According to the census taken during the past year, there are 2334 children in the town. The amount of school money is therefore about one dollar and forty cents to each child—the amount the year previous was about one dollar and thirty-five cents to each child—showing an increase of school money of only five cents to a child.

The town also voted an appropriation of one hundred dollars, to pay the services of a visiting committee, and at our first meeting, held in July last, Joseph T. Sisson, Esq., was appointed to that office. The appointment was accepted by Mr. Sisson, and he has at various times during the past year, visited all the free schools in the town. Mr. Sisson has entitled himself to our unqualified approbation for the able, faithful, and efficient manner in which he has discharged the duties of his appointment; and so well satisfied are your committee with the results of the experiment, that they have only to regret that the entire sum allotted to this object was not absorbed by a more full development of its benefits. About \$40 of the \$100 thus appropriated, still remain unexpended. No money hitherto placed at the disposal of the committee has ever told so well. We feel bound, therefore, to recommend that such superintendency, so essential to the success and prosperity of the schools, be continued.

The result of Mr. Sisson's observations are embodied in the following report :

PAWTUCKET, May 9, 1848.

To the School Committee of the town of North Providence :

GENTLEMEN :—In presenting this, my first report, and in fact, the first report of the kind I believe, ever presented in this town, I, of course, have

* See Journal of Rhode Island Institute of Instruction, vol. 2, p. 64, for the Report of Committee for 1847.

neither precedent nor usage to guide me. I must, therefore, be governed solely by my own judgment, whether it be good or bad. Allow me, then, before proceeding with the details of this report, to present a few considerations of a general nature. A few topics seem to demand each a passing notice, in order that the committee may have, so far as it is in my power to give, as clear a view of the actual condition of the schools of the town, as though they had themselves performed the duty of visiting, instead of entrusting it to an agent.

1st. Of school-houses. One fact is noticeable and strikingly apparent, which is this, that almost universally, the condition of the schools corresponds with the condition of the buildings in which they are kept. Wherever you find the *best buildings*, there you find the most attention paid to cleanliness, order, and general decorum. There you find the best spirit, both among parents and children, and there you find the most cheerful, energetic and efficient teacher; for he knows and feels that his efforts are appreciated, and that his labor is not in vain.

2d. There is another subject intimately connected with the preceding, to which I would especially direct the attention of teachers and trustees. I mean the proper regulation of the temperature of the school-rooms. Some are not provided with thermometers at all, while in others where they are placed, they seem to be regarded by the teachers and all concerned, as an article for show rather than use. They *should* be closely and accurately observed; the uncertain standard of the feelings of the teacher at a given time, is not a sufficient guide to regulate a matter upon which the health, mental energy and activity of the pupil so eminently depends. The system of the individual is not always in the same condition. At one time he is shivering with cold, at another glowing with heat, in rooms of the same temperature; and I apprehend that those peculiar seasons of restlessness and want of proper mental industry, which are within the experience of every teacher, may be traced in ninety-nine cases out of every hundred, to an improper regulation of the temperature, or to the bad ventilation of the school-rooms.

3d. If, in the judgment of the committee, it should be deemed advisable to employ an agent hereafter, it should be made the duty of the trustees or teachers to give him notice of the time of commencing and closing the terms of the schools. The present agent has been unable to visit some of the schools near the close of the term, in consequence of receiving (whether intentionally or otherwise) incorrect information in regard to the term.

4th. Whenever in this report any comparison may be instituted between the different schools, it is done not invidiously, but for the purpose of illustration, and to give the committee a clearer view than I might be able to do by any other means.

5th. In making criticisms upon the skill or efficiency of any teacher, or in giving any opinion relative to the probable or ultimate success of any in the profession, I wish it distinctly understood, that I attach no blame or censure to any, but on the contrary, I believe the teachers of the town, with scarcely an exception, have labored faithfully, industriously and conscientiously; but all have not the same gifts, all cannot succeed alike in the same profession, however anxiously and perseveringly they may strive to attain it.

With these general remarks I will proceed at once to the details of my report, commencing with the Districts in their order. I shall speak of Districts Nos. 1 and 2 in connection, they being located in the village of Pawtucket, similarly organized, and with a population differing in no essential particular.

Of the teachers in the Grammar Departments of these two Districts perhaps it would be impossible for me to speak, critically, in an impartial manner. Being in the habit of daily intercourse with them, and very frequently interchanging views in relation to the various topics connected with the business of common school education, it would not be strange at all, if our ideas had become in some measure assimilated, and that I should be less alive to their faults, if they have them, than I should be under other

circumstances. Suffice it to say then, that they are both able men in their calling, and if the time ever arrives when the schools of the town, and of the State, are all provided with as good teachers, Rhode Island will take high rank in the cause of education. The Middle Department in No. 1 is divided into two schools, one for boys, the other for girls, both taught by females. The Middle Department in No. 2 is a mixed school, also under the charge of a female teacher. The teacher of the boys' department in No. 1 has perhaps the most trying situation, her school being composed of boys just at that age, when it seems as though they were obliged to be ugly. She has, however, managed with much skill, preserved commendable order, and the progress made by her school has been respectable. In the girls' department, the task has been less difficult; but the teacher has failed in some measure, in government; and though a young lady of amiable qualities, and very correct ideas in relation to the responsibility and importance of the situation of a teacher, yet I am fearful she will not succeed in the business, unless she should be so fortunate as to have her lot cast with pupils who can govern themselves, and who love study. The teacher of the Middle Department in No. 2 is, perhaps, not quite so well qualified by education as some, occupying similar stations; but this is compensated for by extreme energy of character, and great executive power; her school always presents the appearance of order and life, the life of progress.

The Primary Department in Districts No. 1 and 2, are each under the charge of a female teacher and assistant. The schools are in good condition, and the teachers in their perplexing situation, appear to manage with kindness and skill. Before leaving this branch of the subject, I cannot forbear making a suggestion to the trustees of District No. 1. Their school, as at present organized, has four departments and but three grades; another grade might be made without adding to the number or increasing the expense; the only obstacle in the way, in my judgment, is the impolitic separation of the schools in the Middle Department. I am unable to appreciate the consistency of the reasoning which will allow boys and girls to attend the same school in the Primary and Grammar Departments, and insists upon their separation in the Middle. It appears to me a great deal might be gained to the district by selecting the most advanced scholars from the two Middle schools and establishing another grade.

DISTRICT No. 3.—The summer term of this school was under the charge of a young lady possessing many of the requisite qualifications for such a station. The difficulties in her way seem to proceed rather from a want of practice, and a sufficient acquaintance with the improvement of the times, than from any lack of talent or ability. If she could be induced to make teaching her regular business, and make herself familiar with the views of practical educators, by attending Institutes and other means, I have no doubt that in a short time she would occupy more than a medium position in her profession. The winter term was kept by a gentleman who, in his situation, labored under many disadvantageous circumstances. In the first place the house, though repaired not many years since, is not what it should be; it is badly seated, and badly arranged. In the second place, the attendance was irregular, many of the scholars being from the foreign population, who take but little interest in the progress or attendance of their children. And in the third place, although so much has been said and done throughout the State, and especially in many Districts in this town, upon the subject of common schools, nothing seems to have disturbed the quiet of District No. 3. *They* have not been moved from the even tenor of their way, their long established habit of doing nothing has not been broken in upon or changed. Yet, notwithstanding all this, the teachers' labors were not all lost. There were some who profitted by the opportunity afforded them, and the school in general, made as much progress as could reasonably be expected.

DISTRICT No. 4.—Here the house is new, neat and convenient. The teacher of the summer term, Miss ———, has more system and method in her manner of teaching, than the female teachers of the town generally have. I visited her school but once. I was well pleased with what I saw,

and presume she advanced her school in a commendable degree. The winter term was kept by a gentleman not without ability, and I believe with an anxious desire to be a proficient in his business; amiable, also, and kind in his feelings, but still with nothing very prepossessing in his external appearance, and a sort of fierce, rushing manner in driving at the object he has in view, but little calculated to quiet the nerves of children, or to lead to a full development of their powers of mind. I did not visit near the close of the term, being misinformed in regard to the time, and cannot, consequently, speak of the progress of the school.

DISTRICT No. 5.—The summer term in this district was kept by Miss _____, in a house better calculated for any thing else than a school-house. She labored against wind and tide with presevering industry and a fair amount of tact and skill, but how fortunately, surrounded by such aids, the committee can imagine better than I can describe. But the winter term opened under different auspices. The old house was deserted, a new, beautiful and commodious one erected in its stead, and the school divided into a Grammar and Primary Department. The former under the charge of a male, and the latter under the charge of a female teacher. It is not necessary for me to say much of the teacher in the Grammar Department. He is well known throughout the State as a successful teacher, and one of the most zealous advocates of popular education. In his school he is an industrious, hard-working man, and in addition to that, he works all over the district out of school. If I were going to make any suggestion to him in regard to his teaching, it would be, that his efforts to have every thing so correct as not to offend *his* ear, to be cautious that his criticisms are not so nice, frequent and continuous as to offend the scholar, and thus produce an opposing instead of a co-operating spirit. New life and new spirit has been breathed into the community, into the parent, into the scholar. The school has become a thing of consequence, the new school-house is looked at, the school talked about and visited, and under such circumstances, progress is certain. I regret exceedingly not being able to visit this school at the close of the term, but, as in No. 4, was misinformed as to the time. The lady in charge of the Primary Department, has labored with all her power and ability. The best can do no more. She does not excel in the business.

DISTRICT No. 6.—The school-house here is a miserable old shell. The school quite large and deserving of better treatment. The summer term was under charge of a female teacher. I visited her school but once, and then perhaps under unfavorable circumstances to her. The school had not been visited frequently, if at all, and the scholars did not probably acquit themselves as well as they would have done, if they had been more accustomed to seeing company; and there might also have been some embarrassment on the part of the teacher. There appeared to be some confusion and want of system, but I express no opinion in relation to the ability or ultimate success of the teacher. At the commencement of the winter term, the prospect for the prosperity of this school was not the most encouraging, the teacher having to labor under most, if not all, the difficulties enumerated in the case of the teacher in District No. 3. The teacher, however, not only improved himself, but improved his school, so that at the close, the progress made was very creditable to all concerned. I will throw in here, a word of advice to trustees. I met the teacher of this school at one of our town Institutes, and heard of his attending one in the city of Providence. From that day a marked change was observable in the appearance of his school, and to this cause, I doubt not, was owing the comparatively happy termination of his labors. If, therefore, trustees would encourage teachers to attend the Institutes, they would be amply repaid by their more efficient labors, even if the time during such attendance should be given them. That plan is practiced in some districts in the town, and I think should be in all.

DISTRICT No. 7.—House bad, out of repair, badly located, no seats fit for use, in fact worthless. The school, both summer and winter, under the charge of the same teacher, a lady who possesses a remarkably mild, teachable and inquiring spirit, and infuses the same into her pupils. Her

school, I think, is the best specimen of the right kind of government in the town; not that it is stiller; not that it is more rigorous, but there is that kind, familiar and affectionate intercourse which draws out, instead of crushing inquiry in the infant mind, at the same time that it protects itself from idle loquacity, and secures obedience without the frequent use of forcible or coercive measures. I have visited her school several times, and always with a good deal of pleasure. Will not that district provide a more convenient house for her useful labors?

DISTRICT No. 8.—I visited the summer term of this school but once, and judging, from the short acquaintance I had with the teacher, a female, I should think her intellectual qualifications were sufficient, but of too nervous and excitable a temperament for such a trying situation. On visiting the school at the commencement of the winter term, I was agreeably surprised at the change which had been wrought. A new house had been built, and a gradation of schools established. The Grammar Department under the charge of a male, and the Primary, under the charge of a female teacher. The Grammar Department exhibited a pleasing appearance, and the teacher showed himself to be a skillful and practical man in his business. Here, too, as in District No. 5, the new house had produced its effects; every thing appeared prosperous and flourishing. This state of things, however, suffered a material drawback by the abrupt departure of the teacher. When I visited the school the second time, I found his place filled by a worthy and estimable man, I doubt not, but he has evidently mistaken his calling. He has now left, and the school is at present conducted by a gentleman I am unacquainted with, but whose reputation as a teacher stands high. The teacher in the Primary Department is laboring assiduously. She is a lady of talents and experience in teaching, and the school is in a flourishing condition.

DISTRICT No. 9.—This is a district comprising a considerable extent of territory, with a very sparse population. The house is a small, but tolerably good one, so located that but one family in the district can get to it without traveling a long distance or crossing the lots. No school was kept in the summer season. There are but few scholars in the winter term, and those mostly small. The teacher discharged his duties tolerably well, and his school made some progress. Perhaps it is in as good condition as the circumstances will admit.

DISTRICT No. 10.—I called twice at the house during the summer term, but unfortunately at the time of vacation. I visited the school several times during the winter term, but derived more pleasure from the first than from any subsequent visit. The school did not improve at all in order or decorum, and in other respects, only in a limited degree.

I have thus, gentlemen, in a brief manner endeavored to give you a history of my labors, confining myself mainly to a narrative of facts, in order, if possible, to enable you to see the schools as I have seen them, and to know what I have learned respecting them. The duties assigned me have, for the most part, been pleasant. I have spent my time in the schools in listening to, and witnessing their every day exercises; in talking to the scholars; in advising with the teachers, and sometimes in personally conducting the exercises. By teachers and by trustees where I have been so fortunate as to meet them, I have been treated with the utmost kindness and attention, and so far as I know, none but the most friendly relations subsist.

Very respectfully,

JOS. T. SISSON,
Agent School Committee.

By the above report it will be seen that while considerable progress has been made in some districts, that in others there is a lamentable want of interest to common school education. We call special attention to the fact stated by Mr. Sisson, that whenever a commodious and pleasant school-house is provided, that then both parents and children feel more interest in the school, and the teacher is inspired with a commendable desire to perform his duties well.

Your committee feel that they cannot too strongly urge upon parents the

necessity of a personal interest in the schools to which they send their children. During the past year upwards of three thousand dollars have been expended in the support of the free schools of this town, and we do not hesitate to say that not one-half the benefit has been received from this money which might have resulted from it, had the parents in the several districts taken an active interest in the schools; seen that their children were regular and punctual in their attendance; encouraged the teachers by visiting the schools, and thus prompted them to renewed efforts and diligence in their duties.

It can hardly be expected that teachers will perform their duties well, if those for whom they work take no interest in the matter, and do not care whether they do their duty or not.

We also wish to call particular attention to the irregular attendance of scholars. This is a great evil and one which parents should endeavor by all means to remedy. According to the reports received by us from teachers and trustees, it appears that the average regular attendance upon the free schools is less than one-third of the number of children in the town. In some districts not more than one-fifth of the children are regular attendants at school, and in all, the attendance is much less than it should be.

Your committee think it hardly fair that those districts which take little or no interest in the schools, and no pains to have a full and prompt attendance of the children, should draw the same proportion of school money as other districts, where both time and pains are liberally devoted to have their money well spent. Unless this evil is remedied, your committee will feel bound to recommend that the school money be divided according to the average attendance; or in some other way which shall be more just than the present mode, to those districts which take pains to have it well and economically applied.*

Your committee would here again recommend that the town continue its appropriation for a visiting committee. In order to improve our schools we must know their deficiencies, and these we never shall know unless a suitable person is appointed whose duty it shall be to have the general oversight and superintendence of all the free schools in the town. The experience of the last year has convinced your committee of this, and the report of Mr. Sisson will evidence to any one, not only that our school system is in no danger of becoming perfect, but also that great improvements are still needed. We trust the town will vote such a sum as will enable the committee to keep an agent employed for several months in the year.

In conclusion, your committee urgently press upon the town the necessity of still larger appropriations of school money. This is made necessary in consequence of the larger number of scholars, of the higher qualifications demanded of teachers, and of the duty incumbent upon every good citizen, to see to it that ample provision is made by the town for the education of its children.

All of which is respectfully submitted by the school committee of the town of North Providence.

J. H. WILLARD, *Chairman.*

S. GANO BENEDICT, *Secretary.*
North Providence, May 27, 1848.

* The law requires that one-half of the State, and the entire town appropriation, shall be distributed among the several districts according to the number of children within the limits of each, under the age of 15 years. The remaining moiety of the State fund is to be apportioned according to the daily average attendance in the respective schools. The last returns from District No. 3, are as follows:

Whole number under 15 years, 174; daily average attendance of all ages, 35.

While such disparity prevails between the aggregate and average returns of this and some other districts, not much in advance of this, it is obvious that their dividends must not only be unjust, but also exceed any frugal expenditure that can be made of them. District No. 3 has more than \$150 of its last apportionment now lying unexpended in the town treasury. Certainly these are matters worthy of immediate investigation and reform.

SCITUATE.

SECOND ANNUAL REPORT OF THE SCHOOL COMMITTEE FOR 1848.

In discharge of the duties devolving upon them by the laws of the State, the school committee beg leave to submit to their fellow-citizens an account of their doing for the year; and to offer a few suggestions upon the present condition of the schools, and the best means for their improvement.

In the year 1800, the legislature passed an act* for the establishment of free schools throughout the State. Previous to that time schools were supported entirely by individual effort and liberality. Good schools undoubtedly existed previous to that time; for the wealthy, who know how to appreciate the advantages of learning, will not be backward in the support of schools. *Their* children will be educated, cost what it may. But for those who are favored with a less portion of this world's goods, for the great majority of farmers, mechanics, and laboring men of the country, free schools must be established, or a fearful amount of ignorance, pauperism and crime will inevitably follow.

The law of 1800 met with such opposition that it was repealed in 1803, Providence being the only town in the State in which it was carried into effect. And if we were to state, that to her free schools is, in a great degree, to be attributed the growth and prosperity of the city, it would be saying no more than has been repeatedly said by some of her most distinguished citizens, and largest tax payers. And it may not be too much to say that other towns would have found it much to their interest to have adhered to the law as did the (then) town of Providence.

In 1828, after much exertion on the part of the friends of popular education, a new law, the basis of the present school law, was passed by an almost unanimous vote of both branches of the legislature. This act required the appointment of a committee of not less than five, nor more than twenty-one, who had power to make all rules and regulations which they might deem necessary for the good government of schools, to employ and dismiss teachers, to locate new school-houses, and change the location of old ones, to fill vacancies in their own number, and make such by-laws and regulations, not inconsistent with the laws of the State, as they might judge necessary or expedient.

Under this act a committee was appointed by the town of Scituate, who divided the town into school districts, two miles square, making only twelve districts, and submitted a report of their doings to the town. This arrangement, though commendable in itself, did not seem to meet the approbation of the town, on the ground that the school-houses then erected were not situated so as to accommodate the new formed districts. Another committee was subsequently appointed, who divided the town into the present arrangement of districts by grouping together such neighborhoods as could be best accommodated by the old houses, and causing the erection of but few new ones. This undoubtedly was the cheaper mode in the first instance, but it may be questioned whether it has not been, or will not be, much dearer in the course of years.

The number of scholars registered during the year 1846-7, was seven hundred and ninety-seven—average daily attendance, five hundred and twenty. The number of scholars registered during the year 1847-8, (two districts not heard from) was about eight hundred and forty—average daily attendance about five hundred and sixty, making for two years, for seventeen districts, an average attendance of thirty-two scholars, and for twelve districts, an average attendance of about forty-five scholars each.

* See Journal of Rhode Island Institute of Instruction, vol. 2, p. 67, for the First Annual Report.

If we deduct from the above, the number belonging to three of the larger districts, the average number for the remaining nine districts would be only thirty-two scholars each—a number by no means too large to be pleasant and profitable to both teacher and scholar. And it certainly requires no argument to show that it is cheaper, and better, to maintain twelve good schools than seventeen poor ones.

Previous to the erection of so many new school-houses, and the repairing of so many old ones, it can hardly be questioned that the number of districts might have been reduced, and in some of the more densely populated ones, schools of a superior grade profitably established. Whether it is too late to obtain the advantages of such a course, time will alone determine.

Soon after our appointment, a meeting was held, and the committee organized by appointing J. Angell, chairman, and S. Patterson, secretary.

We have met nine times for the transaction of business, in addition to the regular quarterly meetings required by law. We have determined the boundaries of Districts Nos. 13, 14 and 17, and have approved of plans of new houses in Districts Nos. 9 and 17. James E. Roberts and Samuel A. Winsor, have been appointed to fill vacancies in the board, occasioned by the resignation of George Yeaw and Harley P. Angell.

The examination of teachers, and the visiting of schools, are among the most important duties required of the committee. In the examination of teachers, we preferred to examine by the whole board, but other duties being so many and so burdensome, it was thought advisable to appoint a sub-committee for that purpose, which committee consists of S. A. Winsor and T. K. Newhall.

We would here remark, that while we have been pleased with the examination and success of some of the teachers, of others we can only say that if they were not such as we desired, they were the best that were offered. We cannot but hope that the time is not far distant when there will be no lack of good teachers, and no difficulty in sustaining them. We have deemed it advisable, even at the risk of a little present evil, to give to those who live among us, who belong to our own town or State, and have an interest in the welfare of our own schools—to those who have character, reputation, their all at stake *here*—at least an equal chance with those from *abroad*—whose only object, perhaps, is the “loaves and fishes,” without regard to the welfare of the flock.

VISITING SCHOOLS.—The plan for the performance of this part of our duty was, to assign to each member of the committee, a certain number of districts, that each might be visited according to law. Some of the committee having found it very inconvenient to make the required number of visits, other members have attempted to make good those deficiencies.

We can hardly forbear suggesting, in this connection, the importance of providing for a more thorough supervision of schools, than can be reasonably expected of any committee, for any length of time, who are not compensated in some manner for their arduous service. We would, therefore, respectfully submit to the consideration of the voters of this town, whether the support of our schools does not involve such an expense as would not only warrant, but imperiously demand, in any farming, manufacturing or mercantile business, the appointment of some suitable person to see that the money was expended in the most judicious manner. And shall it be said that the education of our children, the girls and boys who are soon to become the men and women of the State—that developing the mind—unfolding the intellect, and forming and disciplining the powers of the soul, is of less consequence than farming, manufacturing, or mercantile business? The advantages resulting from a thorough supervision of our schools would seem too obvious to need a relation here. Who can fail to see that such supervision, when properly conducted, must exert a powerful influence over both teacher and scholar? Where is the teacher, be he ever so faithful and conscientious, who, were he aware that his school, in common with all the other schools of the town, was to be visited by a person appointed for that purpose, and that at the close of the year, a report would be made to the town, and perhaps to the world, of his comparative standing and success, that would not make still greater exertions to give his school that life and activity, yet quietness, and gentleness,

so essential to its prosperity. Nor would such a measure necessarily be attended with much expense. A person might, as is the case in several of the towns in this State, be employed to visit each school twice, once near the commencement, and once towards the close of each term, for a moderate compensation. And who can tell the benefits that would result from it? How long would complaints of the incompetency and inefficiency of teachers, be heard?

UNIFORMITY OF TEXT BOOKS.—This is another subject that has occupied our earnest attention. We have generally adopted such books as not only seemed to us most suitable, but also which seemed to be most favorably received throughout the State. And we have the satisfaction of stating that there is now the most pleasing prospect that there will soon be a general uniformity of books, not only in the schools of this town, but, with few exceptions, throughout the State.

By an arrangement effected with the publishers, the new books have generally been obtained at exceedingly low rates, thereby saving to the town some hundreds of dollars in the outfit; and if the arrangement is adhered to, a handsome yearly saving may be realized for the future.

The readiness with which the new books have been procured and introduced, we cannot but regard as a pleasing indication of interest in the welfare of our schools.

RULES AND REGULATIONS.—The subject of rules and regulations for the government of schools, has occupied considerable of the time of the committee. They cannot but regard this subject as one of great importance. They have attempted to define, more definitely, the duties of both teacher and scholar; to state in general terms, what ought to be expected of each. They have endeavored to require nothing impracticable, nothing objectionable, nothing repugnant to the immutable principles of right, of justice, of virtue.

And in this connection we may be permitted to say that it depends, in a great degree, upon parents and school officers to determine whether these rules shall be productive of the good that may reasonably be expected from them or not. If teachers and scholars find their patrons and parents are willing to give them a fair trial, before condemning them, there need be no fear for the result. In preparing these rules we have had the advantage of examining the rules of several of the neighboring towns.

Had something similar to these rules been adopted and carried into effect some twenty years ago, as the committee were then fully authorized to do, we cannot but believe that our schools would have been in a much more efficient and elevated condition than they are at present.

But we would not dwell too much nor too long on the dark side of the picture, the imperfections of our schools. There is a brighter, a more encouraging view of the subject which we more willingly present. The number of school-houses erected, or thoroughly repaired, show, not only what was the sad condition that rendered so much necessary to be done, but what is of still more importance, and upon which we may be permitted to congratulate ourselves and the town, that the people are awake to the importance of providing good school-houses, as a preliminary but important step towards the attainment of good schools.

The following statement will show nearly what has been done by some of the districts. We shall hereafter take occasion to state what, in our opinion, ought to be done in the remaining districts.

In District No. 1, the school-house has been thoroughly repaired, and new seated, in an improved style, at an expense of about \$300.

District No. 2 have built a new house on the west side of the river and purchased and thoroughly repaired the old house on the east side, fitting up both buildings in good style, at an expense, for buildings and lots, of \$1700.

District No. 4 have thoroughly repaired their school-room, putting in new seats, and papering and painting the room in a very neat manner, at an expense of \$300.

District No. 6 have purchased their school-house and repaired the inside, putting in new seats, building an entry or porch, thereby enlarging the room, at an expense of about \$425; besides raising about \$40 more,

for a bell, apparatus, and outline maps, and papering the room, by voluntary subscription. This district has the best apparatus of any district in the town. Their house is too small, and no doubt it would have been better to have built a new one.

District No. 7, voted last fall to repair and paint their house; but a portion of the district objecting to this, unless the location of the house could be changed, a sub-committee was appointed to examine the premises, who recommended that the house be located near the "White Oaks," between Thomas Young's and Charles Carpenter's, where it was originally located by the school committee, some eighteen years ago. The doings of the sub-committee were approved by the board, and the location of the house changed, as recommended by them. From this decision of the committee, the district, or rather some of the inhabitants of the district, have appealed to the commissioner of public schools.*

District No. 8 have repaired their house, at an expense of \$235.

District No. 9, (Hope District) have erected a new house containing two good, well finished rooms, furnished with cast iron revolving chairs, turning upon a swivel. Each scholar is provided with a comfortable seat, to which he has free access, without in the least interfering with, or disturbing those who sit near him.† The house cost, above the underpinning, \$1500; underpinning, lot, grading, apparatus, &c., \$600, making a total of \$2100, which was raised with great unanimity. The prospect is, that under the present favorable influences, this will soon become one of the best schools in the town.

District No. 10 erected a school-house shortly before the present law went into operation, under the act authorizing districts to build school-houses, &c., at an expense of \$275. The seats and desks of this house are of bad pattern, and badly arranged. A little additional expense would make it a good house.

District No. 11. The house in this district has been furnished with new seats, of good pattern, though badly arranged, at an expense of \$65.

In District No. 13, a new and convenient house, well finished, and furnished with green Venetian blinds, has been erected at an expense of \$625.

In District No. 15, a new house of smaller dimensions, yet convenient for a small school, has been erected at an expense of about \$440.

District No. 17, finding the difference between repairing their old house and building a new one, to be comparatively but little, determined to build a good house, at an expense of about \$700. This district is furnished with outline maps, and other apparatus, worth about \$25, obtained by voluntary subscription; and efforts are now being made for obtaining in the same manner, a bell‡ for the new house. This district, in proportion to its amount of taxable property, has made a more liberal appropriation for a school-house than any other district in the town.

The aggregate amount expended within a little more than two years, for repairing and erecting school houses, is about \$7165. These facts speak volumes for the interest in public schools, and augur well for their increased prosperity and usefulness.

Having thus stated what has been done by a portion of the districts of the town, and being fully convinced that a good, convenient house, is a very important step towards the attainment of good schools, your committee proceed to a more unpleasant, but equally imperative duty; that of stating what, in their opinion, ought to be done by the remaining districts. And they will consider themselves peculiarly fortunate, if they can do so without creating any angry or unpleasant feelings. But if they are not thus fortunate, they will have the satisfaction of knowing that they have only discharged a duty binding upon them by their oath of office—which should always be discharged "without fear, favor, affection, or hope of reward."

* The commissioner has reversed the decision of the school committee, and located the house where it now stands.

† Those charged with the erection or repair of school-houses hereafter, will do well to compare the school rooms at the Hope village, with those in Districts Nos. 2, 13, and 17.

‡ Since the above was in type, we learn that the bell has been procured.

District No. 3, needs a new house, or at least, a thorough repair and new seating of the old one.

The house in District No. 5, needs repairing and new seating. A small sum will be sufficient to do this.

The house in District No. 7, needs repairing and new seating, which we hope will be done as soon as the question of location shall be settled.

Districts No. 12 and 14, need an enlargement and thorough repair of their old houses, or what, in the opinion of your committee, is dictated by every consideration of economy, practical utility, and the best interest of the schools—new houses. These houses are so small, and so proportioned, that it will be difficult to repair and arrange them so as to make them convenient for such large districts.

District No. 16. This is a small district, and has a small house, which needs new seats, and some other repairs. A small sum will do all that is necessary to be done here.

Having spoken thus freely of the past and present condition of our schools, and school-houses, it only remains for us to suggest a few things for their further improvement.

Their being so many good and convenient school-rooms in the town, and the commissioner of public schools having done so much, by addresses and publications, to bring the subject of school architecture before the public, it seems unnecessary to extend this report with remarks upon this subject. There are two points, however, upon which we can hardly forbear to make a few suggestions, to wit, convenient seats and ventilation.

We need not say that children should be comfortably seated, in order to make much progress in their studies, and yet too many of them are obliged to sit six hours in the day, upon slab seats, without backs, and so high that they cannot rest their feet upon the floor. If they can, under such circumstances, maintain their position, and keep their seats, it is more than ought to be *required* of them. These seats are rapidly disappearing, and it is to be hoped that they will soon be among the "*things that were*."

A certain amount of pure air being absolutely necessary to the preservation of health, too much attention cannot be paid to the subject of ventilation. This may be effected by openings through the floor and ceiling, or into the chimney, which may be closed at pleasure;—or by lowering the upper sashes of the windows.* We have in the rules and regulations, enjoined it upon teachers to take especial pains, by all the means in their power, to keep their rooms well supplied with pure air.

Among the many means for the improvement of our schools, we would mention two wholly within the control of parents and guardians:

1. *Visitation of Schools.*—Frequent and unceremonious visits, by parents, school-officers, friends, and strangers, cannot fail to exert a salutary influence upon both teacher and scholar. When the scholar knows that his parents feel a strong interest in his progress and conduct at school, that progress and conduct will be such as will merit their approbation. We would respectfully urge it upon parents, and upon all interested, to see that this safe, sure, yet cheap method of improvement be no longer neglected.

2. *Regularity and Punctuality of Attendance.*—A more regular and punctual attendance, we regard as one of the means, and a very important one too, of improving our schools. Parents, who detain their children from school, or allow them to detain themselves for trivial reasons, cannot be aware of the injury of such a course, not merely to the scholar himself, but to all with whom he is connected in his studies. Indeed, if the evil went no farther than the loss of a few lessons to the absent scholar, we would not trouble you or ourselves with remarks upon the subject.

How can the scholar who lost an important lesson yesterday, and perhaps loses another to-day, be prepared to understand the lesson of to-morrow, which depends entirely upon the lessons which have been lost? Now, what can the teacher do in such cases? The class must go forward,

* The new ventilating stove which may be seen at the Hope and Clayville school-houses, is well worthy of examination; and as your committee think, of introduction.

or there will be no progress, and the delinquent must hobble along as well as he can, with a vague, half-formed, uncertain idea of the subject, or the whole class be detained until he has recovered his standing; or, as a last resort, the class must be divided, and new ones formed, and the teacher who already has too many recitations to attend to, must have others, and still others, crowded upon him, until his classes consist of but single scholars. Then there is no time for explanations, demonstrations or reviews; and it is, and can be but "*a little here and a little there,*" and *nothing effectual any where.*

A few facts will show that we do not speak unadvisedly.

The average attendance for the year 1846-7, was only about 65 per cent., and for the year 1847-8, as far as heard from, 70 per cent. of the whole number of scholars registered, making for the two years past an average attendance of about two-thirds the number registered, to say nothing of the number of children of proper age, not attending any school; which owing to deficiencies in the district, returns cannot be fairly presented. Now, if the average daily attendance is only two-thirds the number registered, then the school does only two-thirds the good it might do, and ought to do, making no allowance for the disturbance in classification, &c. But if we make any allowance for that, it is but reasonable to conclude that one-half of the time, money and other expenses of our schools is lost. If this be the case, will not parents lay these things to heart, and try to provide the remedy. The remedy is a simple one,—*regular, seasonable, daily attendance.*

In making suggestions for the improvement of our schools, we would by no means forget the improvement of teachers themselves, but would briefly notice some of the methods by which they may be benefitted.

1. *Teachers' Associations.*—An association of teachers, meeting at stated intervals in the different districts, in which the various subjects pertaining to schools and school duties shall be discussed, and the methods of one teacher presented, illustrated, and compared with other methods of other teachers, must exert a good influence, and ought to be encouraged by parents and friends of education.

2. *Teachers' Institutes.*—Through the liberality of the Commissioners of public schools, three of these Institutes were held in this State last fall. Many were also held in other States, and as far as we are aware, they were every where regarded, both by those who took an active part in their exercises, and by spectators, as an efficient means of improvement.

3. *A Normal School.*—A school for the education and training of those who wish to fit themselves for the responsible duties of a teacher; a school that will prevent the rash and ignorant, not to say reckless and wicked *experimenting*, which too often takes place, is regarded by the friends of education as the all important measure for establishing our educational interests and improvements on a sure basis.

Other methods of improvement, such as a gradation of schools in populous districts, where the younger scholars can be separated from the older ones, and each have the advantage of appropriate teachers, the establishment of town, village, and district libraries, will readily suggest themselves.

In conclusion, we would respectfully urge the consideration of one or two questions.

Does not the increase of this town in wealth and population, require an increased appropriation for the support of our schools?

If an improved condition in the schools of *other* towns increases the wealth and comfort of those towns, would it not have a similar effect *here*?

Let us reflect candidly, and act as becometh those who have the welfare of society as well as their own, at heart.

All of which is respectfully submitted.

Job, Angell, Daniel Gould, T. K. Newhall, Samuel A. Winsor, James E. Roberts, Sylvester Patterson, school committee.

SMITHFIELD.

REPORT OF THE SCHOOL COMMITTEE FOR 1848.

The School Committee, in conformity to the Public School Act, have prepared, and would respectfully present the following Report.

On reviewing our labors during the past school year, and examining the returns from the several Districts for the purpose of preparing a **SECOND ANNUAL REPORT**, we find on the one hand many things to cheer and encourage us, while on the other some insuperable barriers seem to intersect the pathway of progress to that high standard of excellence in our public school system which we now view only in the dim distance, and which united action and untiring vigilance alone can reach. It is our object, however, to exhibit a faithful picture, diversified with its true light and shade, without flattering the vanity or misguiding the judgment of those interested in the subject of common school education.

At the close of the school year ending June, 1847, was submitted the *first Annual Report* of the school committee ever published in this town, and the *second Report* ever made in any form on the subject of free schools. Owing to the imperfect knowledge which generally prevailed in relation to the new and untried, or partially tried, system of public instruction, and the want of proper method in carrying out the principles of that system practically; there were required on the part of the committee much extra time and labor in obtaining the District Returns, and collecting and arranging in a tangible form the scattered materials for the preparation of a report, as required by law. Although the same difficulties still exist in a great degree, yet they will doubtless be gradually removed as the present school system becomes more thoroughly developed, and its principles more fully incorporated into the hearts and understandings of the people. It is evident, however, while these circumstances remain, they must operate unfavorably in making full returns to the State Commissioner, or very accurate and methodical reports to the town.

But obstacles however great should not discourage us. They ought rather to increase our diligence in making the best returns we can with the materials within our reach. An imperfect report made in good faith is better than no report. If we cannot present what we like, we should not fail to present the best we can. Indeed we would hail that feature of the law which makes it the *duty* of the school committee to submit to the town an annual report of the public schools, as one of the brightest characteristics of the present organization of our free school system. It incites the officers who superintend the public schools to a faithful discharge of their duty, and tends to awaken a general interest in behalf of the cause of popular education. It presents the people under salutary influences with just that kind of knowledge which they have an undoubted right to claim. It informs the tax payers who support these institutions how their money has been expended.

As the school years are successively terminated, and the town is called upon to replenish an exhausted treasury, the following queries ought to be satisfactorily answered to the public. *How has the money been expended? Has it fulfilled the intent of the law, and produced the greatest possible amount of good? What obstacles are standing in the way of the elevation and improvement of our public schools, and what means can be devised to remove these obstacles?* The above inquiries very naturally suggest the following arrangement of subjects for present consideration.

- I. APPROPRIATIONS AND EXPENDITURES.
- II. CONDITION OF THE SCHOOLS.
- III. DEFECTS AND SUGGESTIONS FOR IMPROVEMENT.

I. APPROPRIATIONS AND EXPENDITURES.

The amount of appropriations for the support of public schools was greater the past year, both from the town and districts, than in any former year; and the sources from whence they were derived are as follows.

Received from the state,	\$2175 33
Raised by town tax,	2500 00
Registry tax,	616 83
Total,	\$5292 16

The town we believe gave no specific directions how the \$2500 voted last year for the support of schools should be divided. The committee supposed, however, that the intention was to distribute it agreeably to the provisions of the law for the apportionment of the state's money; hence one half of the above sum or \$2644 80, (rejecting fractions) was equally divided among thirty-five districts, giving \$75 60 to each, and the other half was apportioned to the several districts according to the number of scholars in average attendance the *preceding year*, giving \$1 74 to a scholar.

In addition to this general appropriation, particular districts have raised by rate bills and by tax on the property for the support of schools, \$1169 75

Given by individuals, 276 00

Also raised chiefly by private donations for the establishment of libraries, \$1125 00

For school apparatus, 50 00

The expenditures for the purpose of building and repairing school-houses are as follow.

No. 9 has erected a new house, cost	\$360
" 10 " " " " "	500
" 23 " " " " "	700
" 30 " " " " "	3000
" 36 " " " " "	700
" 27 has voted for repairs,	150
" 18 has voted for repairs and lot,	500
" 29 has raised by private subscription and expended for repairs,	95

It appears that five new school-houses have been erected the past year, at an aggregate expense of \$5260, and three old ones have been repaired or voted to be repaired at the expense of \$745.

The following is the summary of the expenditures for all school-purposes during the year:

Appropriations from the town and state,	\$5292 16
Raised by districts and individuals,	1435 75
Donations for libraries and apparatus,	1175 00
Aggregate amount for building and repairing school houses,	6005 00

Total, \$13,907 91

This is the sum expended in our town the past year for the express object of elevating the condition of our public schools—of advancing the cause of popular education; and if rightly applied the town is so much the richer, but if wrongly applied it is so much the poorer. How important, then, that the expenditure of such an amount have a judicious oversight in order to answer fully the high purposes for which it was intended. What a vast amount of good is capable of being effected by such a *mighty engine of*

power, if properly directed! On the contrary, how much evil may be produced by neglect or wrong direction of such means.

II. CONDITION OF THE SCHOOLS.

1. *Boundaries of districts and location of school-houses.*—There are now thirty-four school districts instead of thirty-six as last year reported: district No. 20 having been dissolved, and Nos. 30 and 22 united. Such alterations have also been made in the lines of other districts as seemed best suited to the accommodation of the inhabitants. The boundaries of some of the districts have been more accurately defined without materially altering their territorial limits, while all have been revised or rewritten, and returned to the town clerk for record.

The location of school-houses is a subject of much importance, and has been one of perplexing consideration to the committee. And while they have endeavored to discharge their duty agreeably to the dictates of their best judgment, they have been unable in special cases to meet the wishes of all concerned, or even to satisfy themselves.

It has sometimes been impossible to purchase land where the committee deemed a proper site for a school-house, and hence they have been obliged to accept locations they by no means preferred. And the committee would take this opportunity to say that if they have given cause of dissatisfaction either to individuals or to districts, in the location of school-houses, and the alteration of district boundaries, they feel justified in the belief that they have done the best they could. When called upon to attend to these matters, wherever any material change seemed necessary to be made, affecting districts collectively, or individuals, the committee have invariably given such districts an opportunity of a fair hearing and have consulted the feelings and wishes of individuals thus affected, and then acted, or endeavored to act with a conscientious regard to duty and the best good of the schools.

2. *Improvement in school-houses.*—The sentiment seems to be gaining ground that a *good school-house* is indispensable to a *good school*. As well may we expect that effects can be produced without causes, or ends attained without means, as that good schools can be had without their essential prerequisites. It is true, a very *poor* school may be taught in a *good* school-house, and it is equally true that a very *good* school *cannot* be taught in a *very poor* school-house. There may be a great sacrifice of time and money in a good school-house by poor teachers and bad management, but the wisest and best of teachers, under the most judicious management, cannot wholly redeem the sacrifice in a bad school-house, and hence it is good policy as well as prudent economy for the districts to build *good* school-houses—to furnish suitable places for the schools, in order to receive the full benefit of the public appropriations, and we are happy to observe an increasing interest on the part of the districts to procure respectable houses, and to furnish such conveniences as are conducive to the health and comfort of the pupils, and the general improvement and good order of the school.

The five new school-houses erected in our town the past year, at an average expense of \$1200 each, afford striking evidence that the business of improving our public schools is no longer a matter merely to be talked about, or an idle fancy existing only in the imagination, but that the great work of raising upon a sure basis the standard of common school education has *really* and *earnestly* commenced.

The decided improvement in the number and condition of our school-houses, will clearly appear by reference to our last annual report. Out of thirty-six districts, twelve only were supplied with houses of their own, while nineteen districts were dependent upon school houses owned by proprietors, and five districts were entirely destitute of school-houses of any kind, having been obliged to keep their schools in shops, old dwelling-houses, and such places as they could procure for that purpose. At present the order of things seems somewhat reversed. It now appears from the preceding table that twenty districts are furnished with houses of their

own; thirteen by proprietors, and one district only is without a school-house.

We have not only better school houses, but increasing pains seem to be taken to furnish them with those necessary fixtures which belong to every well regulated school. Several of the districts within the past year have supplied each of their schools with a clock, thermometer and hand bell, and in addition to these some districts have furnished globes and outline maps. Much better attention is given to those incidental arrangements which so essentially promote good morals and encourage habits of neatness and order.

The houses last erected exhibit a manifest improvement in their style of architecture, and display a taste and neatness in their general appearance, highly creditable to the districts; and when fully completed we hope they will not be wanting in what every school-house in town ought to have—two separate yards for the boys and girls, neatly fenced, appropriately supplied with usual conveniences, and ornamented with shade trees. Some small arbors or summer houses tastefully arranged, where the yards are of sufficient extent to admit of it, would increase the expense but very little, while they would add very much to the beauty and pleasantness of the grounds. Let the school be surrounded with pleasing objects of association. Every thing calculated to elevate the moral sentiments and to promote refinement of taste and feeling, should not be deemed of trifling consideration. When the laws of mind and the true principles upon which the development of our higher natures depend, are better understood, then will all those things be more duly appreciated which tend to induce happy influences, and to make the school as it were a delightful retreat for intellectual and moral culture.

2. Number and grade of the schools.—During the past year thirty-five school districts have been in operation, maintaining fifty-four different schools, including the summer and winter schools, which some of the districts have sustained where separate sets of scholars have attended. In these schools fifty-six different teachers have been employed, twenty-four males and thirty-two females.

The average length of school term for all the districts in town appears to be six and a quarter months, being about one-third of a month longer than the school term averaged the preceding year; no school, according to returns having been kept less than four months. The money received from the town and state would support the schools on an average about four and a half months; the rest has been done by the districts, and by individuals. Some of the districts have only expended the money received, while others have raised funds by rate bills, by tax on the property, and by the liberality of individuals or manufacturing companies, to sustain their schools from eight to twelve months in the year.

The following districts, viz. Slatersville, Bernon, Lonsdale, Valley Falls, and Central Falls, have each maintained schools of different grades—a primary school for small children and a grammar school for older scholars; and the same principle we would gladly see adopted and carried out in other districts.

Where the schools are large, as a general thing it is much better to establish schools of different grades than to divide districts, for such a plan would be productive of many advantages to the schools,—more system—better classification and better discipline. It is very important for the improvement and best good of every school, that the pupils be arranged into proper classes, according to their respective attainments. It requires about the same time to hear a recitation of one or two scholars as it would that of a class composed of ten or twelve, and if a teacher understands his business, he can in the same time communicate the same amount of instruction to each pupil of this class as he could to one scholar alone. Again, the smaller scholars require different management from the older ones,—different course of discipline and instruction. Rules and regulations ever so well adapted to one set of scholars may be ill suited in many respects to the wants of another, and hence as we cannot adopt different systems in the same school, so we cannot adopt *any system* so well suited to a mixed

school. Furthermore, pupils of the same age and attainment are more likely to agree together, are less liable to hurt or trouble each other in their plays and exercises during intermissions, and the younger pupils are less liable to imbibe improper habits from each other than from the bad examples of older ones.

On this principle we would recommend uniting small districts, when their situation would allow of it, for the purpose of grading and classifying the schools. The principal objection urged against this plan is the greater distance scholars have to travel, the inconvenience of small scholars getting to the school-house, and this, it must be confessed, is sometimes a serious one, yet in most cases it is believed the advantages of uniting the districts would far more than compensate the inconveniences. Such districts would draw more money from average attendance, would have all the advantages of classification, and in short, would have a superior school at less expense. And it may be laid down as a general maxim that it is better for children to go a mile to a good school than half a mile to a poor one.

4. *Instruction and discipline of the schools.*—Reasoning from the relation of cause and effect, we should naturally expect, if the condition of the school-houses is improved, a corresponding degree of improvement would follow, in the discipline and instruction of the schools; and our expectations have not been disappointed in this respect. We almost invariably find the best schools in the best school houses; here the teacher puts forth his best exertions for the good of the school, and the pupils seem more happy, cheerful and interested in their studies. All as if by common consent, appear willing to unite their efforts to improve the character of the school, and to render it worthy of the most enlightened provisions which have been made for its support.

The means and ends are intimately connected. More has been done the past year than in any former year to advance the interests of the public schools. More money has been appropriated by the town and districts, and more has been expended in building and repairing school-houses. And if the means have not been ineffectually applied, the public have a right to anticipate results decidedly beneficial. To the anxious inquiry then, have the results already indicated been “dearly bought?” or do they fully warrant the expenditures which have been made?

Speaking in general terms, it is believed we hazard nothing in saying that our schools have been better taught and better governed the past year than they have ever been before. That parrot-like repetition of words without meaning, seems to be giving place to more thorough and efficient modes of teaching. Scholars are more frequently taught the “why” and “wherefore” of what they do, and are required to *think* and *reason* for themselves.

Almost every branch of useful instruction introduced into our public schools is receiving more attention, and seems to be claiming a new and increasing interest; and we are happy to observe that this is true in a special manner with reference to that important yet much neglected department of education, “*appropriate reading and speaking.*” Nearly all our schools have attended more or less to the elementary sounds of the letters, to the first principles of articulation, and to some general rules and directions as preparatory exercises in the art of reading and speaking, and the result is a decided improvement. There seems to be something like *spirit* and *expression* about taking the place of that *dull, lifeless monotony* which has so generally prevailed. In fact the exercise of reading in many of the public schools has hitherto been little more than a mere mechanical repetition of words, as unmeaning to the reader as they were unimpressive to the hearer.

Although the art of reading is justly deemed one of the highest accomplishments of the scholar, an absolutely essential qualification in the public speaker, and a highly useful attainment in every individual member of society, yet so small a place have the principles of “appropriate reading and speaking” occupied in our systems of public school instruction, and even in some of our higher seminaries of learning, that we meet with very few good readers, who possess the power of expressing the feeling and

sentiment of an author in an intelligent and impressive manner. The late introduction of Russell's series of Reading Books, accompanied by the author's Instructions at Teachers' Institutes, has, we believe, done much to awaken an interest on the part of instructors to improve the method of teaching this important branch of education. And if the plans which have been successfully commenced be persevered in and properly carried out, we shall soon see in many of our schools a respectable number of comparatively good readers.

It is gratifying to observe the improvement also in discipline and government. "The Rules and Regulations" adopted the last year by the committee, have been very generally carried out, and have, as we believe, produced a most salutary effect upon the schools. Cases of obstinate disobedience have been very rare, and a much better and more uniform system of discipline generally prevails. Better order is observed; the school rooms are kept neater and cleaner, and more attention is given to those little habits which individually would be deemed trifling, perhaps, but taken together would constitute an important element in all well devised systems of education. Better government is sustained with less severity or corporal punishment.

5. *Libraries.*—Without reference to Sabbath-school libraries, there have been expended in the town during the past year about \$1125 to supply district libraries for general reading. This has been done principally by the manufacturing companies of Hamlet village, Slatersville, and Lonsdale. In the Hamlet district the sum of \$125 has been expended through the agency of Mr. Wardwell, in the purchase of a small but choice selection of books, to which all the people in the village have free access.

In District No. 3, (Slatersville,) the sum of \$500 has been raised and appropriated to establish a library, chiefly by the private liberality of Messrs. Slater, Lockwood and Chapman. This library is open to all by paying the trifling sum of one cent per week for each volume, if properly used and not kept longer than two weeks in the hands of the reader. The amount received in this way is to be appropriated exclusively for the supply of new books.

Lonsdale Company (District No. 32,) have liberally raised the same sum, \$500, which has been expended in the purchase of a library for the benefit of that village, with regulations similar to those of Slatersville.*

The efforts made in these villages, as well as in other places where libraries have been established, to afford the people facilities for reading and general information, are highly creditable, and will prove as we trust of great utility. Just in proportion as we increase the means of useful knowledge, as the people have access to proper books, the tone and character of society will be elevated. And it is hoped that other places destitute of libraries will follow the noble example of these until we shall see every village and every district in the town supplied with a choice selection of reading. It is by spreading general intelligence among the parents, and this alone, by which we can hope to secure their co-operation in carrying forward the great work of elevating the common schools.

These libraries were selected and purchased by the Commissioner of Public Schools.

6. *Moral Education*—Transcending in importance all other improvements there seems to be some hopeful changes in the moral condition of our schools. There is less profanity—less coarse and vulgar language among the scholars, and more kindness and refinement of feeling towards each other. This may be ascribed in part, as we have intimated, to the improvement and bettered condition of the school-houses—to the generally increasing interest in the subject of common school education—to the more frequent visits which the schools have received from parents, trustees and strangers, and to the higher moral tone of action which govern our teachers. And we are happy to witness increasing attention to that *all-important* subject which involves the *vital interests* of our schools, and constitutes the basis upon which all must stand or fall. No system of education can be sound in principle which is not based upon the *moral sentiments*.

* See Note on page 15.

Here lies the only platform upon which every enduring superstructure must rest. In order to develop the *whole man* to the *greatest extent* of his capabilities, and to prepare him to fulfill the highest purposes of his existence, the physical, intellectual and moral training must go together in harmony. While we are educating the *head* we must educate the *heart*,—while the intellect is duly nurtured, the higher principles of our nature must not be forgotten—while we are unfurling the sails, we must take care of the ballast. Upon the moral training of our youth every thing truly valuable in their education depends, and for this training we are to look in a special manner to the teachers of our common schools. The teachers here stand as sentinels to give direction to the moral sentiments. *May they duly consider the weight of their responsibility!* It is not, however, the province of the instructor to teach *religion* in the popular sense of the term, or to teach *SECTARIANISM* in *any* sense, but *it is his high prerogative to inculcate those virtues which dignify human nature and prepare mankind for usefulness and for the right enjoyment of every earthly blessing.*

III. DEFECTS AND SUGGESTIONS FOR IMPROVEMENT.

1. *District Returns.*—The law makes it binding upon the districts to submit annual returns of their respective schools to the town's committee, in such manner and form as the committee or the State Commissioner shall prescribe, and the penalty for neglect of making such returns is a forfeiture of the school money the succeeding year; hence it is important these returns be punctually made.

The law also requires the school committee to make a report of their doings, and the condition of the public schools to the town, and also to the State Commissioner, within a certain time, before the town can draw its share of school money from the state. Hence the necessity for the trustees to see that the returns are filled out and sent to the clerk of the school committee, in due season to enable them to make their report as the law requires; this should be done by the first of May.

It is furthermore very important that these returns be made out in a proper manner, as the school committee are dependent upon them for many facts and statistics which go forth in their report to the town and state; they should be filled out with care and accuracy, so that they can be relied upon. Some of these returns, we are sorry to say, have been very incomplete and imperfectly made out, which causes the school committee much perplexity and trouble in preparing their report.

The want of fulness and accuracy in many of the district returns, may be owing in part to the fact that some teachers have considered this as no part of their duty, and have carelessly left their registers at the close of the term for the trustees to decipher as well as they could, and to make out their returns from them. But the teacher who understands, or ought to understand his own language, and how the register has been kept, is the one to transcribe it, and should always consider it his duty to fill out or assist in filling out the returns, so far at least as they relate particularly to the register or to the school.

Again we may observe that great care should be taken in keeping the registers, especially as regards the number of scholars and the average attendance. The law makes the proportion of school money to each district dependent in part upon the average number of scholars which attended school the preceding year. Each scholar this year draws \$1.74, and a variation then of a single scholar in the average attendance would make this difference in the amount of money drawn by that district. Hence a careful accuracy should be observed in estimating the average. There seems, however, to be a great deficiency from some cause in making returns of the average attendance of the scholars, and we believe some districts have not hitherto received their appropriate share of the public money in consequence of this irregularity. Several districts which have sustained their schools from eight to twelve months in the year, have returned a less number of average attendance, with even a greater number of registered scholars than some other districts which have continued their schools only four or five months, and consequently the districts in some instances

which have supported the longest school, have drawn the least money in proportion to the number of scholars. This may be explained from the fact that in a manufacturing district where the school has been continued through the year, a part of the scholars only attended school the same term, while the others were employed in the mills, and the next term they would exchange, thus giving all an opportunity of five or six months schooling in the course of the year. Now if the average be made for the year, or the whole time the school keeps, it would be much less when different sets of scholars attend different terms, than it would be if the same school had kept half the time with a general attendance; and hence such a school would draw more money by keeping four months in the year than it would by keeping twelve months. It would be poor encouragement, then, for a district to raise funds to continue the school, if by so doing it received less money from the town.

There should be adopted, if possible, some general rule in averaging the attendance, which would produce something like equality among the districts throughout the town. The registers are designed to keep every half day's attendance, and at the close of the term, *the number of half days all the scholars attended should be added up and divided by the number of half days in the term*,—the result is the average attendance for that term. This rule should be observed in all the districts where one school is taught four or five months only, with a general attendance. But in manufacturing districts, where different sets of scholars attend school in different parts of the year, and in those districts also where a winter school is kept for large scholars, and a summer school for small children, the following rule may be used: *Find the average as before for the winter term, and to this add the average for FOUR MONTHS more of all the new names registered after the first term.*

Attendance.—It appears from district returns that the whole number of scholars registered in the town is 2012, while the average attendance or the average number which has received four months schooling, is only 1577, making a difference between the average and registered number, of 435. Although there has been a manifest improvement in this respect, the average attendance being far greater the last year in proportion to the whole number registered, than it was the preceding year, still the want of punctuality in attendance is a serious evil, and one that demands united effort to remedy.

The *intent* and *spirit* of the law is, that every individual in community, from the richest to the poorest, should enjoy the privileges and blessings of a good common school education, or at least such an education as four months instruction would give, and so long as universal education contributes to private and public good, and the law makes ample provision at the public expense, to carry out this object, it is the *duty of every one* to accept the advantages of the public gift. But it seems that about *one-fourth part* of the children registered in the town, have virtually rejected the provisions of the law, by neglecting to attend the public schools, and thus deprived themselves of all the benefits intended by these institutions. The same number of schools, the same number of teachers, and the same amount of appropriations, would educate the two thousand children whose names are registered, equally as well as the fifteen hundred which have actually attended the schools and received four months schooling. *Thus between four and five hundred children within the borders of our own town, are growing up in ignorance and vice, shedding an unhappy influence upon the morals of society, and defeating the primary object of the public appropriations, while at the same time the law has liberally provided for these as well as for others.*

But the evil does not stop here. Those who do not attend school punctually, not only deprive themselves of the advantages of instruction, but they injure the school, and consequently deprive others of its advantages. The irregularity in the attendance of five hundred scholars would materially injure the progress and improvement of five hundred more that punctually attended. Every teacher well knows what confusion is produced in the classes—what perplexity to himself and general injury to the school,

are caused by irregular attendance. The means of instruction have been held out but not accepted. Money has been expended—school-houses have been erected, teachers placed in them, and the doors opened to receive the scholars, but they have not come in. Every thing has, apparently, been done that could be done, but to take the children by the hand and lead them to the school-house, yet the precious gift thus freely proffered has been rejected, and our schools are suffering the pernicious consequences. And the question now arises, how shall this evil be remedied? Perhaps coercive legislation would not be the most prudent or efficient means of accomplishing this object.

The law has already done as much as would probably be judicious to do by making the amount of money to each district depend in part upon the average attendance, not only with a view of holding out an inducement for *all* the scholars of a proper age to *enter* the school, but to encourage, if possible, a regular and punctual attendance afterward. What remains then to be done to remove the difficulty, must be mainly done by the *efficient co-operation* of the *parents*. We believe the matter needs only to be generally understood to insure united effort. Let every parent remember that a single day's absence of a scholar from school, involves a train of evils far more injurious in their consequences than the mere privation of a week's instruction.

Ventilation.—Although, as we have seen, much has been done to improve the condition of our school-houses, yet they are by no means what they ought to be; and much may be said as to the manner and necessity of repairing old houses and completing new ones, in order to render them comfortable and convenient, and to carry out those plans best calculated to promote the moral and physical well-being of the rising generation. But the proper limits of our report necessarily exclude variety of detail. One thing, however, in this connection, is of such vast importance to the best interests of our schools, that we hope to be indulged in giving it some consideration. We refer to the necessity of supplying the school rooms with *pure air* for the children to breathe.

The subject of ventilation has indeed claimed some attention, in the construction of the new school-houses in our town, but the means employed have been very inadequate to the purpose, and have clearly evinced that the importance of pure air, and the most efficient arrangement for supplying it, have not been well understood or duly appreciated. A small aperture is usually made in the ceiling, designedly for the bad air to pass off, but without any communication through the roof or gable for the final escape of this air, and hence it is forced down through the same aperture in streams of cold air, and often directly upon some of the children's heads, to their inconvenience and injury; while at the same time there is no means of supplying fresh air, except through the ordinary doors and windows, which are generally closed tightly, with the exception of a few minutes' recess. Here forty, fifty, or a hundred scholars are confined, with the idea of perfect safety if there are one or two small holes in the upper part of the room, merely to admit the air into the attic, as if the garret had some magic influence upon the vitiated atmosphere, which after being there awhile would return perfectly purified and fitted to undergo again the process of respiration. It is evident, however, that such arrangements, to say the least, must be very imperfect, and sometimes positively injurious, especially when these apertures are so placed that the scholars are exposed to a descending current of cold air.

There are some essential conditions depending upon scientific principles, which must be observed in all thorough and efficient arrangements for ventilation. Two principal communications must be had directly with the external atmosphere, one in the roof or upper part of the building, for the egress of impure air; the other through the floor or lower part of the room, for the ingress of fresh air. Various plans have been devised for the purpose of accomplishing this object in the best and most economical way, but one of the most simple and scientific is that contrived by Mr. Emerson, of

Boston.* His apparatus consists mainly of an "*Ejector*," which, as the name implies, is designed to conduct away or expel the impure air, and an "*Injector*," which is designed to supply fresh air; the Injector being connected by a simple arrangement with the stove or heating apparatus, in order to warm the fresh air as it is thrown into the room.† A very simple and efficacious contrivance for the escape of bad air is merely to have the aperture in the ceiling open into a large pipe connected with the chimney; the warm air ascending the chimney would induce an ascending current in the pipe, and thus the vitiated air would be drawn or forced up the pipe, while a stream of cold air would be prevented from descending into the room. But it is not our purpose to discuss the best mode of ventilation, so much as to enforce the *necessity* of it, and the consequences of its neglect‡

It is well known that *air* is in some degree absolutely essential to animal life,—that our very existence is every moment dependent upon it, and that the continuation of this existence for any length of time in a healthy state, depends not merely upon the *presence* of air, but upon a continual *supply of a certain kind and a certain quantity in a given time*. This fact may be easily proved by confining a small animal, as a mouse, in a tight vessel containing two or three quarts of air; in a short time he shows signs of uneasiness and distress, pants for breath, and finally in a few hours is found *dead*. So if our children be shut up in a tight room and compelled to breathe the same air over several times, a very few hours would terminate their existence.

In order to properly consider the vast importance of this subject, it must be remembered that atmospheric air, in its natural state, and when best suited to healthy respiration, is primarily composed of two distinct principles, called by the chemists oxygen and nitrogen gases, mixed in the proportions of about twenty parts of oxygen to eighty of nitrogen, with a very small quantity of carbonic acid gas,—that the oxygen, while it constitutes but one-fifth part of the whole, is the life-giving and life-preserving principle, while the office of the nitrogen, whose office seems to be merely to dilute and modify the oxygen, producing a mixture of proper strength and quality for healthy respiration. This is the constitution of the air when received into the lungs, but there it undergoes a material change in its nature, nearly one-half, or from eight to nine per cent. of the oxygen has disappeared, and its place has been supplied by an equal quantity of carbonic acid gas, which is a most deadly poison. The effect then produced upon the air by breathing is *the consumption of a portion of its vital property and the production of a fatal poison*,—hence air after having once passed through the lungs, is unfit to support animal life, and should never be breathed over a second time, if we wish to preserve health.

These facts should be known to every individual, and should be deeply impressed upon the mind of every teacher and parent in the land. The extent of the impurity of the air consequent upon respiration, and the time required to consume the oxygen in a given quantity, may be subject to rigid calculation;§ and the importance of the subject as connected with the management of our public schools is the only apology for here presenting one or two illustrations.

It is found by careful experiment that an individual breathes from fourteen to twenty times in a minute, and inhales at each inspiration from fifteen to forty cubic inches of air, varying in different individuals and in the same individual at different times. But it may perhaps be safely stated as the basis of our calculations, that pupils of the age usually attending our public schools, upon an average breathe twenty times in a minute, and in-

* See Patent Office Reports for 1847, page 42.

† For a full description of this apparatus, and the mode of its application, see Report of the School Committee of Boston, 1848, re-published in the second volume of the Journal of the Rhode Island Institute of Instruction, and in Barnard's School Architecture.

‡ See an excellent Essay on this subject in Mr. Barnard's Report on the Public Schools of this State, for 1845.

§ See Dr. Combe's Principles of Physiology applied to health.

hale seventeen cubic inches of air at each inspiration. Hence it appears that no less than 340 cubic inches are necessary to support the respiration of a single pupil for the space of one minute, and forty pupils, which may be considered about the average number in our schools, would in the same time require 13,600 cubic inches, or nearly eight cubic feet. Now let us suppose the school room to be twenty feet square, and nine feet studded in the clear, it would contain 3600 cubic feet, and if, as we have just seen, eight cubic feet of air be consumed in one minute, by forty pupils, 3600 feet would be consumed in 450 minutes, or seven and a half hours. Hence if forty pupils should be confined in a room of the above dimensions, perfectly tight, without any means of *ventilation*, they would all be DEAD in *seven hours and a half*; and consequently, by a plain deduction of logic, *half dead in three hours and a quarter*, about the usual time scholars are confined in our public schools each half day. But fortunately, however, our rules enjoin a recess of ten or fifteen minutes, about the middle of this interval, when the doors are open and the scholars permitted to breathe a little wholesome air in the open element, while some of the poisonous vapor escapes from the room. Although these conclusions, it must be allowed, are somewhat ludicrous, yet they are no less startling in their consequences, when it is found by strict investigation, that with certain limitations, they are *literally true*. If all the pupils were not literally dead in seven hours and a half, they would be breathing a *deadly atmosphere*, which would absolutely extinguish life in a very short time; and if they are not half dead, in three and a half hours, they would be receiving a positive injury to their health and constitution, which may cut short their existence and destroy a great portion of their usefulness and happiness in life, and consequently they may be said *literally* so to live but *half a life*.

In the natural process of respiration, besides the changes above described, the air becomes warmed and saturated with watery vapor, and when expelled from the lungs is specifically lighter than the surrounding air, and consequently rises like smoke or steam. Hence we observe a most beautiful provision of nature to prevent the air being drawn back again into the lungs; now let us see for a moment how far children are permitted to enjoy the benefit of this provision.

Suppose forty pupils seated in a school room of the above dimensions, each pupil breathing at the rate of twenty times a minute, and inhaling seventeen cubic inches of air at each inspiration; they all would throw out from their lungs in the space of one minute, eight cubic feet of impure and poisonous gas, which would immediately rise to the upper part of the room, and if there is no chance of escape through the ceiling, it there remains hovering about like a living thing, as if conscious of undue confinement, seeking liberty. In another minute eight cubic feet more is added to that, and so on; thus in a very short time all the upper part of the room is filled with bad air, portions of which will be forced down where the scholars sit, and become mingled with the whole atmosphere of the room; so that in the course of twenty or thirty minutes the pupils are *compelled*, and *cruelly so, to breathe over the same air that has once passed through their lungs*. While laboring like dutiful children to perform the task assigned them, and toiling with anxiety to progress in the highway of knowledge, they have nothing better to sustain life and keep up their energies than a *poisonous atmosphere*: like criminals compelled to work hard, with scanty rations, and of a very *bad quality*.

Should we be presented with a draught of *putrid water* from the *stagnant* pool to quench our thirst, so long as we are surrounded by numerous crystal fountains from the bountiful gifts of nature, we should turn from it with contempt and disgust. And with no *less disgust* should we shun a *polluted* atmosphere, could we see those poisonous and disgusting particles of gas which are floating about in the air, and which we are often compelled to breathe without knowing it. Putrid water or putrid food would be no less deleterious to the health and constitution, when taken into the stomach, than putrid air when taken into the lungs. The only difference is, we can see and taste the one, while our senses do not detect the other; so much more important to carefully exercise reason and judgment in

guarding against an evil our senses fail to discover. How many thousands of persons, young and old, both in our school rooms and public assemblies, have been doomed to breathe an impure and tainted atmosphere, without a suspicion that any thing was wrong until its evil effects were experienced in the form of languor, faintness, headache, and a variety of other unpleasant sensations, and still, perhaps, not suspecting the true cause, until a continued repetition of the evil has made sad inroads upon their health and constitution.

What teacher, when confined in the corrupted air of a small, low studded, ill ventilated school room, has not experienced the evil effects of such air, by the dull, languid, sleepy appearance of his scholars? And who has not observed that these effects are greater just before recess, and less in the forenoon than in the afternoon? In the latter part of the day, after fifty or sixty pairs of lungs have been acting upon the air of the room for six or seven hours; it is then in its maximum state of impurity. And many a teacher knows by sad experience, how restless and uneasy the pupils become at such times, how difficult it is to preserve order, and how much more difficult to fix the attention of the pupils, and make them comprehend their studies. How many blows and severe beatings have been inflicted for idleness and stupidity, while a little pure air would have aroused that energy and activity which the rod failed to do.

If such be the effect of breathing bad air for a few hours only, what will be the consequences when this experiment is repeated from day to day, for *weeks*, and *months*, and *even years*. The next generation will grow up a weak, feeble, sickly, puny race. That hardy, robust and healthy constitution, which characterized our forefathers, and which so admirably fitted them for those toils and hardships which they endured for our sake, will no longer be known among their posterity.

The all-wise and benevolent Creator has provided abundant means in the established laws of nature for the purification of the atmosphere and the preservation of health, and so long as we comply with the necessary conditions of these laws, a healthy constitution is the result. But we have disobeyed these laws, and are now suffering the penalty of their violation. The artificial contrivances of civilized life, guided by false notions of refinement and the dictates of an unsound philosophy, have grossly perverted the simple principles of nature in this primary condition of one of the richest blessings we are permitted to enjoy. We have taken much pains to furnish ourselves with many of those outward conveniences and comforts of life which tend to subserve earthly happiness, but at the same time have forgotten to conform to those *PHYSICAL laws upon which the health and continuation of human life and human happiness ultimately depend*.

We believe the evils arising from inattention to the subject of proper ventilation, and the necessity of purity of atmosphere for healthy respiration, has already produced alarming effects upon the physical constitution of our race. Breathing bad air tends directly to destroy the healthy action of the blood—produces general debility—weakens the lungs in a special manner, and renders them more susceptible of disease. This is truly an *arch destroyer which has been chiefly instrumental in undermining the health and constitution of the fairest portions of our land, and is now sowing broad-cast the seeds of pulmonary consumption, which annually sweeps its thousands of our brightest youth to an untimely grave*.

The propriety of making appropriations for the support of free schools, has long since ceased to be doubted, in a republican government, where the safety, prosperity and happiness of a country depend upon the virtue and general intelligence of the people, and where every man is endowed with the privileges of a man as recognized by the laws of his country, and is allowed to exert his influence upon government through the medium of the ballot-box. Where every man can come to the polls, as each of you, fellow citizens, can do here to-day, with no power to dictate him, save his own conscience and the solemn convictions of duty, it needs no argument to show that general knowledge must be the polar star of national security. The query then is, not whether *any* appropriations shall be made, but what amount it is expedient to make under present circumstances, for the sup-

port of public instruction. This question, gentlemen, you are about to decide in view of your own individual interests and of the town. And let it be remembered that the only pledge of security for our sacred liberties and the perpetuity of our honored institutions, is the *sustaining power of a universal extension of knowledge and virtue*—that the illuminating beams of these essential elements of our nation's glory and prosperity can only be diffused through the medium of common schools. These are emphatically the *institutions of the people*; let the people guard them and they will guard the people; and finally, may all the public appropriations be so applied in extending the light of mental and moral excellence through the land, that the inestimable blessings of our civil and religious institutions, the precious inheritance of our forefathers, shall be transmitted unimpaired to posterity!

All of which is respectfully submitted,

In behalf of the Committee.

JAMES BUSHEE, *Clerk.*

Smithfield, June 5, 1848.

School Committee for 1847-48, Charles Hyde, James Bushee, Ahaz Mowry.

NOTE. Extract from a communication received from the Librarian, (Rev. C. W. Hewes,) of the Lonsdale Atheneum.

“The whole number of volumes purchased by Mr. Barnard, Commissioner of Public Schools, for our Library, is one thousand, to which have been added several volumes by donation. Our library was opened on the 18th of December, 1847, and the average number of volumes issued each week is eighty-five, and the whole amount taken for the use of the books (one cent per week,) after April 1, 1848, was \$25, and after this date, September 1, is \$52. The books most called for are Voyages and Travels, American Biography, and American and French Histories. The works on Natural History, Chemistry, Domestic Economy, Manufactures and Trades are well read. Every day illustrates the wisdom of Mr. Barnard's selection in general, and especially in purchasing many books adapted to juvenile reading, and thus creating a taste and the habit of reading in the young. The books are treated better than we dared to hope—not a book has been lost—and it has been necessary in but one instance to impose a fine for damage. Our bill for repairs has not exceeded three dollars.

Our best hopes in reference to the Library, in every particular, have been more than realized, and the apparent improvement in the tastes and habits of this people is a complete justification of the munificent (\$500) expenditure on the part of the Lonsdale Company in providing so judiciously selected library.”

GLOCESTER.

REPORT OF SCHOOL COMMITTEE FOR 1847.

The School Committee present the following Annual Report :

Soon after their appointment, the Committee met, and organized by the choice of O. F. Otis, Chairman, and J. S. Tourtellot, Secretary ; the latter afterwards resigned, and H. W. Aldrich was chosen to fill his place.

During the past year, the Committee have held sixteen meetings for the examination of teachers, and the transaction of other business relating to the schools. With few exceptions, they have visited each school twice during the winter term.*

They have examined 17 applicants for schools, 16 of whom have been approved.

The following table shows some important facts in relation to the distribution of the public money.

Number.	SCHOOL DISTRICTS. DESIGNATION.	No. of Scholars registered 1845-6.	Average Attendance.	Share of Public Money.	Valuation of Property in District, 1847.	Amount to each Scholar.	No. cents of \$100.
1	Evans, - - - - -	16	12	41.86	44,500	2.60	9
2	Olney, - - - - -	12	9	39.20	39,500	3.27	10
3	Spring Brook, - - - - -	57	33	60.62	76,000	1.06	7
4	South Chepachet, - - - - -	47	29	56.96	68,000	1.21	8
5	North Chepachet, - - - - -	43	32	59.10	101,000	1.37	6
6	Pine Orchard, - - - - -	38	25	53.41	56,500	1.40	9
7	Clarkville, - - - - -	24	15	43.53	35,500	1.85	12
8	Arnold, - - - - -	27	16	46.41	37,500	1.68	12
9	Wilder, - - - - -	18	12	42.09	33,000	2.34	13
12	Jefferson, - - - - -	26	21	57.40	61,500	2.21	9
13	Harmony, - - - - -	38	34	62.69	88,500	1.64	7
14	Central, - - - - -	34	27	59.17	86,000	1.74	7
15	Brown, - - - - -	29	18	48.07	39,500	1.65	12
16	Trapp, - - - - -	31	20	50.00	64,500	1.61	8
17	Sweet, - - - - -	14	7	38.67	28,000	2.76	14
18	Clay, - - - - -	18	4	43.64	37,500	2.42	12
19	Mount Hygeia, - - - - -	8	5	20.23	23,000	2.53	9
		481	329	828.55			9

* The Committee have spent 484 hours in meetings of business, examination of teachers, and visiting schools, which, at \$1.00 per day of 10 hours each, would amount to \$48.40. They have travelled over 280 miles, which, at twelve and a half cents per mile, would amount to \$17.25, although in most cases, they have walked to the several schools when visiting them.

The whole amount of money received for school purposes for the year 1845-6, was \$828.59; of which \$548.59 was derived from the State, \$2.00 from town, and \$80 from registry tax. By provision of the school act, one half the State and registry, with the whole of town money, was divided equally among the districts, and the other half according to the average attendance of the scholars.

It appears from this table, that if the whole amount of public money was equally distributed among the 401 scholars, each would receive \$1.72. If divided according to the valuation of property in each district, there would be a dividend of nine cents on \$100. But, divided as it actually is, District No. 3, having the greatest number of registered scholars, has \$1.06 to a scholar, and No. 2, with the smallest number, \$3.27; or, by the return of 1844-5, (seven scholars,) it would have \$5.50.

CONDITION OF SCHOOLS.—The attendance in some of the schools has been very regular, and the result has been order, spirit, and progress; while in other schools there has been great irregularity, and a consequent indifference to study on the part of the pupils, besides a waste of time and money. Want of improvement may almost always be traced to great irregularity. It is evident that the success of every school depends in a great measure upon the regular attendance of its scholars. Good school-houses and good teachers may be provided, but there will be no real progress unless there is punctual attendance; and as half of the State money is divided according to the average, a constant attendance secures a greater amount of the public money. For instance, the average attendance in No. 13, in 1845-6, was 34 greater than that of any other district, and the amount of money received was greater, while the number of scholars registered was 19 less than in No. 3. The average of the same district the following winter being only 25, there will be a loss of money nearly equal to the cost of one month's instruction. This is true of any other district in similar circumstances.

BOOKS.—The Committee, acting in accordance with the School Act, Sec. V. ¶ 9, and with the advice of the State Commissioner, recommended a new system of books to be used in the schools. In the opinion of all who have examined, a change was much needed. The readiness with which the parents of the several districts have furnished these books for their children, has been not only gratifying to the friends of education, but has aided greatly in waking up an interest in the schools. In most of the schools a very decided improvement has been made in all the branches taught, and especially in reading and arithmetic. The *newness* and *novelty* of the excellent series of reading-books adopted, has awakened an unusual interest in the subject of reading, and much assisted the teacher in this important branch of education. Colburn's Arithmetic, in the opinion of the best judges, is superior to any other mental work, and imparts a knowledge of figures and discipline of mind, to be derived from no other source. Great proficiency has been made in this branch during the past winter.

SCHOOL-HOUSES.—The houses in several of the districts are quite deficient in the matter of convenience and attraction. This is unfavorable to the cause of common school education. A comfortable and spacious school-room has a most important bearing upon the health and mental culture of children. The location, structure, and internal arrangement of school-houses should be as pleasant and convenient as the districts are able to make them, and not, as in some instances, present a prison-like appearance to the child. The Committee are happy to report an improvement in several districts. The Pine Orchard school-house has been neatly and conveniently re-modelled, at an expense of about \$175. The *excellent progress* of the scholars in this school is one of the good results. Clarksville district have erected a conveniently and neatly finished house, on a pleasant site, at an expense of \$350. Much credit is due this district in leading off so nobly in the matter of new school-houses. Nos. 3, 4, and 5, in Chepachet, have united in building a large two-story house, with three compartments, to accommodate a gradation of schools, and voted to raise \$2500 on the taxable property for that purpose. By this means, the system of common school education will be more thoroughly carried out. With proper teachers, supervision, and support, this school will not be inferior to those of the

same character in Providence. This house, combining all the attractions and conveniences of modern school-house architecture, reflects much credit upon the districts, and will be an honor to the town. It is hoped that this noble spirit for improvement of school-houses will be imitated by all the other districts, which will speak much for the liberality of our citizens.

ALTERING DISTRICTS.—The Committee found, upon inquiry, that a different arrangement of the districts was necessary for a more successful operation of the schools. Accordingly they have made such alterations as in their judgment seemed most conducive to this object. Of course, it was not possible to make every man's farm a school district, or every house a school-room; nor could they, by any arrangement, satisfy every person in each district. But if every individual preference has not been gratified, they have, at least, endeavored to promote the greatest good of all the schools. When the State Commissioner visited this town to ascertain the condition of its schools, he at once remarked, "There are too many districts for the best interests of education." This fact is obvious to every impartial observer. With these views, the Committee have made the *four* following important changes:

1. The *Steere* and *Winsor* districts, (Nos. 10 and 11,) registering in 1846. one fourteen, the other seven scholars, have been dissolved; a small portion of them added to Nos. 14 and 17, and the remainder to No. 16, thereby giving that district thirty or more scholars. The reason of this change appears in the fact that No. 16 has no school-house, and the houses in Nos. 10 and 11 cannot be approved for school purposes. Now the new district is able to erect a house within a convenient distance of all the scholars, and give them a good elementary education.

2. Districts No. 1, with twelve scholars, and No. 2, with sixteen scholars, were next united, which seemed necessary, as No. 1 had no house, and the house in No. 2 was not suitable for the best interest of education. Neither of these districts alone could without difficulty maintain a school according to law, but united they are able to build a *neat and convenient house*, and sustain a good school. Why should these twenty-eight scholars have two teachers, at an expense of \$50 per month, when one can do the same work just as thoroughly for \$25 per month? If these districts be *not* united, why may not Pine Orchard, with thirty-six scholars, be divided into *two* districts, and demand *two* teachers? or the Harmony, with thirty-eight scholars, especially when many of the scholars are as far from their school as any in the new districts?

3. Districts No. 9, with eighteen scholars, and No. 17, with seven scholars, have been united. No. 9 had a school-house in good repair. The objection to the union on this account was not valid in the minds of the Committee, as the owners of the house can dispose of it, and use the avails in paying their proportion of the cost of a new one. This *has* been done by Nos. 3 and 4. The Foster part of No. 9 receives no part of the public money from that town for the support of the school, and it was thought best that the part belonging to this town should be united with No. 17, and thus have the means within themselves of building a house and keeping up a school. If the great distance of some of the families is a serious objection, the Harmony, Jefferson, Clarkville, and Pine Orchard districts can urge the same. Those who walk one and a half or two miles, have often more energy and vigor of mind, and make greater progress in their studies.

4. A small portion of No. 14 was annexed to Nos. 3 and 4, and the remaining part united with No. 18, thus making a new district of forty scholars. In these districts are houses which are private property. To these the same remark will apply as to that in No. 9. This change seemed important, because No. 18 had not scholars sufficient (there being but fifteen registered,) to maintain a separate school. This union puts all in possession of a good education.

By the present arrangement of districts, there are five on the south side of the town, five on the north, and four in the interior. There will be a saving of five school-houses, to be built, and kept in repair and warmed during the winter term, which in ten years would amount to \$2000. The schools now need fourteen teachers, where before there were nineteen.

This reduction of the number of districts will give those that remain \$250, thus gaining in each year nearly one month school to each district. This also increases the ability to maintain good schools. Those who have the greatest amount of means, have the least amount of public money, as was designed they should have; while those of the smallest means have the largest share.

If any feel themselves aggrieved by what has been done, they have the right of appeal to the State Commissioner. If injustice has been done to the cause of education, that public officer will rectify it when the facts are laid before him.

It has been said these changes were made to benefit the village at the expense of the out-districts. Can any one say this with all the facts in this report before him? Do not the tables, which have been prepared from authentic sources, prove this charge to be wholly without foundation? If District No. 5, with less than \$60 of public money, can invest \$990 in a new school-house, and raise nearly \$400 to sustain a school through the year, why may not any other district, with the same amount of means, have the same amount of school if they choose? District No. 3 has, with \$60 free money, and its own resources, sustained a male teacher for the last three years. May not other districts, with equal means, do the same? If districts are not disposed to pay for any school beyond the free money, whose is the fault? This new arrangement of districts increases the amount of public money to each, though it does not give each the same amount of property, or the same number of scholars. This is not possible with the present situation of the population. An approximation to a perfect equality is all that can reasonably be expected. The Committee feel confident that with a united and hearty co-operation of the several districts, these changes will tend greatly to elevate the condition of all the schools in the town, and will doubtless make them equal to any of the country schools in the State.

Believing that *education* in the highest sense is one of the greatest blessings that can be conferred upon the rising generation, the Committee have labored steadily and perseveringly to promote this object. They have endeavored, as they were able, to lay deep and solid its foundations, and rear up a noble superstructure. In doing this they did not expect to escape censure, or secure the good will of all. But if their efforts have given a new impulse to this cause, and shall be appreciated by the friends of education, they will feel themselves amply rewarded. As the success of our schools depends in a great measure upon an enlightened and liberal public sentiment, they would help to form that sentiment by spreading out before their fellow citizens the facts collected and considerations offered in this Report, hoping that they will be read and pondered by all who desire the well being of society.

The following table shows the present arrangement of districts, with their scholars and valuation:

1. Harmony, - - - - -	37	25	92,000
2 Evans, - - - - -	34	24	84,000
3 Spring Brook, - - - - -	43	32	82,000
4 South Chepachet, - - - - -	30	24	74,000
5. North Chepachet, - - - - -	55	48	102,500
6. Pine Orchard, - - - - -	41	25	56,500
7. Clarkville, - - - - -	25	22	35,500
8. Arnold, - - - - -	34	19	37,000
9. Star, - - - - -	24	16	61,500
10. Trapp, - - - - -	31	20	64,500
11. Brown, - - - - -	23	19	39,500
12. Central, - - - - -	41	30	108,500
13. Jefferson, - - - - -	28	23	61,500
14. Mount Hygeia, - - - - -	11	8	23,000

The Committee would recommend the same division of public money as heretofore: one half of State and registry money according to average attendance, and the remainder, with that raised by town, equally among the

districts. This gives the smaller and weaker districts the means of sustaining their free schools nearly as long as the larger and richer districts. If six cents on \$100 of valuation is raised by the town, in addition to that received from the State, all the schools can be kept five or six months in a year, without each separate district taxing themselves. This would be a less amount than has been raised in some previous years. If it is not raised by the town, some of the weaker districts may not have a majority in favor of taxing themselves, and their children will not be as well educated as those districts that will have schools.

Orin F. Otis, Jesse P. Ballou, Harrr W. Aldrich, Alvin A. Meader
Gridley Burnham, George Olney.

GLOCESTER, May 25, 1846.

Extracts from Report of the School Committee for the year 1847-8.

THE amount of money for the support of public schools for the year ending June 1848, is as follows:

Received from State appropriation,	\$517 01
" " Town	200 00
" " Registry tax,	118 76

Whole amount for the year, \$835 77

This sum has been divided according to law, among the several districts, as the table will show. The number of children registered during the year has been 485; so that each child receives \$1 75.

The following table will show the average attendance of the past year, which is the basis of this year's appropriation, the equal division of the money, and the division according to average total valuation of property:

No.	Name.	Av. Atten.	E. div'n.	Av. div.	Total.	Valuation property.
1	Harmony,	25,06	35,16	23,95	\$62,11	\$92,000
2	Evans,	24,54	38,16	23,51	61,67	84,000
3	E. Chepatchet,	29,80	38,16	28,55	66,71	82,000
4	S. Chepatchet,	14,90	38,16	14,27	52,43	74,000
5	N. Chepatchet,	43,24	38,16	41,43	79,59	102,000
6	Pine Orchard,	27,67	38,16	26,51	64,67	56,500
7	Clarkville,	22,00	38,16	21,08	59,24	35,500
8	Arnold,	18,50	38,16	17,72	55,88	37,000
9	Star,	21,92	38,16	21,00	59,16	61,500
10	Trapp,	20,00	38,16	19,16	57,32	64,500
11	Brown,	19,00	38,16	18,20	56,36	39,500
12	Central,	32,67	38,16	31,30	69,46	80,500
13	Jefferson,	23,50	38,16	22,51	60,67	61,500
14	Mount Hygeia,	7,40	19,08	7,09	26,17	23,000
	Gross & Wade,	1,75			4,33	
		331,89	515,16	316,28	835,77	

The above valuation of property may not be strictly correct, as there has been some alteration in the valuation of some of the districts.

CONDITION OF THE SCHOOLS.—The schools in the town have generally appeared well. There is a decided improvement over any previous year, in the efficiency of their discipline and instruction, and a more lively interest on the part of children and parents. But while the state of the schools has been improved; yet they are not what they *should be*, and what they doubtless *will be*, by carrying out more effectually the present system of education.

In four or five cases, the *want of good school-houses* has greatly retarded the progress of the schools, and for this reason, in one or two instances, there was a useless expenditure of time and money.

In most of the schools, *want of punctuality and regular attendance*, has been a great bar to success. In some cases there would be thirty schol-

ars to-day, forty to-morrow, and twenty next day; the classes are thus almost broken up, and the progress of the school greatly hindered. A little care on the part of parents will enable them to be *regular in their attendance*, and thus secure the benefits of the school.

In some of the schools, *the discipline has been too lax* to secure the best results of education. "Order is *heaven's first law*," and it should be the first of the school-room. In one or two case, there seemed to be an effort on the part of the larger scholars to *appear ignorant*, in answering the most simple questions; as if their *real ignorance* was not a sufficient rebuke upon their former *negligence and folly*. If parents will not co-operate with the teacher in putting down all such attempts of unsubdued rebellion and disorder, he should use his own prerogative, in expelling all such from school. The best interests of a *whole school*, should not be defeated by the boorishness of a few who would grow up in ignorance and shame.

DISTRICT Nos. 3, 4, AND 5.—These districts have, during the year, erected a neat and convenient house, at an expense of nearly \$3,000, containing three departments, (primary, intermediate, and grammar) with a room for recitations, and one for a library. When we look at its pleasant location, excellent architecture, and fine arrangement for seats, ventilation, &c., it may well be placed in the first rank of school-houses in the State.

These schools commenced operation last October, and have been thus far successfully carried forward on the plan of gradation. We have a greater amount of education for the same money and time, than on the old plan.

DISTRICT No. 12.—This district have erected the past year, altogether the best school-house in the town, if we except the village. It is well constructed, ventilated, and arranged, neat and attractive, within and without. It has a pleasant location, spacious yard, good wood-house, and other conveniences, and all well painted. The whole expense was over \$800. This district may well boast of their efforts as worthy of emulation. As the result of this noble expenditure, the school last winter in some respects, ranked with the highest grade in the town; and was kept by Mr. Warren Brown, who is a teacher worthy the accommodations provided, and the scholars whom he instructed. The district have liberally taxed themselves to support the same teacher during the summer.

Such are the views of the committee in reference to the present state of the schools in the town; views founded in most cases on personal observation, and in every case, on the actual knowledge of the facts. We may have erred in some instances, but, if we have, we are sure it is not from any prejudice or personal bias. Laboring as we have without any compensation, except a few thanks, and many a large revenue of "curses from the ignorant and the selfish," there is certainly no temptation for us to withhold the truth on this subject in order to please, or to secure a re-election to office. And though we are not candidates for public favor, yet we feel deeply interested in the highest prosperity of our common schools.

In closing this report, the committee desire to present a few considerations to their citizens on the subject of a *Visiting Committee*, who shall be appointed by the school committee of the town. From our knowledge of the subject, and from the *result* of the experiment in those towns where it has been made, we are sure that the best interests of the schools demand that there should be a visiting committee, *who shall be paid for their services*; and who, under the direction of the school committee, shall visit all the schools *twice*, as the law directs, and more if necessary; who shall act with the trustees in seeing that the teachers are doing *their duty*, and that the scholars are making the most possible, of the expenditure of the public money; and who shall also make a written report of the state of each school. The amount paid to one or two individuals in the performance of this duty, would be nothing in comparison to the great advantage received by the town from such supervision.

The committee would urge the importance also, of raising as much money by the town as is received by the State.

Orin F. Otis, Jesse P. Ballou, Harris W. Aldrich, Alvin A. Meader, Gridley Burnham, George Olney.

COVENTRY.

REPORT OF THE SCHOOL COMMITTEE FOR 1847.

THE undersigned, in behalf of the School Committee of the town of Coventry, begs leave respectfully to report as follows:

At a town meeting holden on the 1st day of April, 1846, the freemen, by the passage of a series of resolutions, for the first time made an appropriation for the support of public schools, and decided to elect a School Committee, in accordance with the laws of this State, and forthwith elected the present Committee, to wit: Samuel Arnold, O. G. Waterman, J. A. Fenner, Caleb Nicholas, B. H. Horton, and C. Whipple.

Knowing as we do, that facts with reference to the past and present position of the town with respect to common school education, and the returns made as the law directs by the several districts, will afford the best evidence as to our faithfulness in the discharge of duty during the year that has passed, we shall content ourselves with a simple rehearsal of our labors, hoping that the future history of the education reform in this town will satisfy our fellow citizens that we have not spent our time entirely in vain.

We have assembled in five regular and ten special or called meetings, and, with one exception, there has always been a quorum in attendance, thereby making in all fourteen meetings.

At the first meeting, after the administration of the oath of office, an organization was effected by the election of Samuel Arnold, *Chairman*, and Cromwell Whipple, *Secretary*.

Since that time the Committee have labored as hereinafter specified, the particulars of which are reported without regard to date.

In accordance with instructions given at the time of our election, we proceeded to re-arrange and divide the town into districts. This was a laborious task.

DIVISION INTO DISTRICTS.—Having decided that in effecting such a division, the following principle should be adhered to as far as practicable, viz: "In defining the lines and specifying the property included within them, the whole of each person's land or farm, lying together or adjoining, shall be included in one and the same district;" each of the six members of the Committee agreed to visit three of the eighteen districts, ascertain as nearly as possible the present lines of boundary, and such alterations thereof as may be necessary and expedient. After the members had spent about two days each, the desired object was at last accomplished, though in attaining it, the record of the old lines of boundary was so uncertain and indefinite as to prove of little service.

Reports of these individual examinations were then compared, revised, corrected, and written out by the Secretary twice, and, after careful consideration, finally adopted.

By direction of the Committee, the Secretary obtained twenty-five printed copies of this Record of Boundaries, and deposited one with the town clerk, and one with the clerk of each of the several districts.

This record (with the exception of some errors in printing,) is believed to be correct, and to afford evidence sufficient to decide with reference to the land included in any district in the town by the established lines thereof.

ORGANIZATION OF DISTRICTS.—The Committee proceeded early in the spring of 1846 to call and notify meetings in the several districts for the organization thereof. Such meetings were holden in eleven of the eighteen districts at the times first appointed, five neglecting to organize until twice notified, and two neglecting this duty until their attention was directed to it for the third time by the Committee.

These primary meetings were attended in nearly every instance (by

previous agreement,) by at least one member of the Committee, and, after much exertion, an organization was effected in every district in the town.

EXAMINATION OF TEACHERS.—This duty was allotted by vote to a sub-committee of three, consisting of Messrs. Nicholas, Horton, and Whipple, the two last named only having served as such.

In the performance of this duty, the sub-committee has examined seventeen candidates, applicants for places as teachers, to fourteen of whom certificates were given, three having, in the opinion of the Committee, failed to pass a legal examination. These examinations have been conducted in accordance with principles suggested by the State Commissioner, and, while the Committee, in the discharge of duty, have insisted on evidence of good moral character, (even sometimes to the serious inconvenience of some of the applicants, one of whom was obliged to go about sixty miles to obtain certificates,) yet they have endeavored to refrain from being rigid, for the first year, by giving certificates to all candidates whose claims the act relating to public schools would on anywise recognize to be valid.

The sub-committee have spent in this unpleasant service more than four days; and, though many of the teachers who have been employed during the past year have not been qualified in accordance with the ultimate design of the law, yet the members of the Committee flatter themselves that as a whole, the moral character of those engaged as instructors in the public schools has been of a higher caste than that exhibited by their predecessors for many years.

Five of the teachers employed in this town have acted by authority of certificates given by E. L. Baggs, as County Inspector, and two other by authority of certificates countersigned by the State Commissioner.

RULES AND REGULATIONS.—The law makes it the duty of the Committee to adopt a series of rules and regulations for the government of the public schools in the town; and in the performance thereof, B. H. Horton, and C. Whipple were appointed a sub-committee to consult with the State Commissioner and others, and make a draft for consideration. Their report, as amended, was adopted, and a neat copy thereof, suitable for framing, deposited in the keeping of each district.

These regulations are similar to those adopted for the best schools in this State, and are calculated to restrain both teachers and scholars, at the same time maintaining the rights of each against the other.

LOCATION OF SCHOOL-HOUSES.—The members of the Committee have endeavored, in the performance of this disagreeable duty, to secure union among the inhabitants of the district interested, in order to be governed by their wishes, if not incompatible with a due regard to the health and convenience of the scholars.

After spending much time in this service, though they may have erred in the final decisions, they have been made without partiality or prejudice.

APPORTIONMENT OF SCHOOL FUND.—The sum of money appropriated in this town the past year, for school purposes, amounted to \$1332.62, viz: amount received from State, \$817.97; registry tax, \$228.00; town appropriation, \$272.65.

As directed by the act relating to public schools, the Committee divided one half of the amount received from the State equally among the several districts, and the other half according to the average attendance on the public schools last kept in each district.

The electors not having directed in what manner the town appropriation and registry tax should be divided, the Committee apportioned the amount thereof equally among the several districts, believing that this course would give satisfaction.

SCHOOL BOOKS.—The law places the power to decide in relation to the text-books to be used in the public schools, in the hands of the school committee of the town, and in the exercise thereof, a sub-committee, consisting of Messrs. Horton and Whipple, was appointed to examine books, consult with the State Commissioner, and the committees of other towns, and report a list of such as would be best, every thing considered, for adoption.

After consulting the School Commissioner several times—attending a meeting of the school committee of an adjoining town for the same pur-

pose—attending a meeting of the friends of education, holden in Providence, for this object, and an impartial examination of many text-books, the sub-committee submitted the following series, which was adopted, and the list embodied in the rules and regulations, as follows:

SPELLING—Gallaudet's Speller and Definer.
 READING—Swan's Series, Russell's A. S. Reader.
 GRAMMAR—Wells' Grammar.
 ARITHMETIC, MENTAL—Colburn's, Emerson's First Part.
 " WRITTEN—Thomson's, Greenleaf's.
 GEOGRAPHY—Morse's, Smith's Primary.
 COMPOSITION—Parker's Aids.
 HISTORY, UNITED STATES—Willson's R. J. E.
 " GENERAL—Robbins'.
 PHYSIOLOGY—Andrew Coombe's.
 PENMANSHIP—Columbian, or Winchester's.
 NATURAL PHILOSOPHY—Miss Swift's First Lessons.
 MORAL PHILOSOPHY—Wayland's.
 ASTRONOMY—Burritt's Geography Heavens.
 ALGEBRA—Sherwin's.
 DICTIONARY—Worcester's Comprehensive.
 ETYMOLOGY—Town's Analysis.
 Holbrook's Apparatus.
 Wickham's Printing and Drawing Slates.
 Mitchell's Outline Maps.
 Northend's Book Keeping.
 Bible, or New Testament.

The above series, though undoubtedly imperfect, is perhaps, under the circumstances, as good as could be selected for the public schools of this town.

INTRODUCTION OF NEW TEXT-BOOKS.—To facilitate this desirable object with little expense to the parents and guardians, and ultimately be entirely rid of the old worthless books, the School Committee appointed Mr. Horton agent to make arrangements with the publishers of the text-books adopted, for their immediate introduction, by exchange or otherwise, into the public schools.

In this, the most laborious, thankless task performed by any member of the Committee during the year, the agent labored zealously, and so effectually as to obtain the books for a nominal price only. In this service, it became necessary for him to open correspondence with many publishing houses in New York and Boston, and to visit the latter place two or three times since his appointment. He has received and disposed of school books to the amount of \$800.

POWER TO FILL VACANCIES IN SCHOOL DISTRICTS.—This power has been exercised in one instance only, the appointment of a trustee in District 13, in place of one resigned.

APPROVAL OF SCHOOL HOUSES.—Though, because of ignorance, prejudice, and, in some instances, real inability, many of the districts did not furnish suitable school-rooms as required by the law, yet the Committee, anticipating a better state of things, and regarding the interests of the children as paramount, voted, late last autumn, to approve, for the past winter only, of all the school-rooms in use in the town, and, through their influence, have induced some of the best teachers to engage in the performance of their arduous duties, in districts and school-rooms, in many respects revolting to their feelings.

ORDERS ON THE TREASURY.—These have invariably been signed by the Chairman, and the Clerk has kept a regular drawn debtor and credit account, on a permanent record, with each district.

VISITING SCHOOLS.—Besides the fifteen days spent in meeting, in our capacity as Committee, for the transaction of business, and many more employed in individual efforts as sub-committees, and in the several districts, the School Committee devoted seven entire days to visiting the schools. Though this is a pleasant duty, and the letter of the law requires its performance at least twice during the continuance of each school, yet when the electors realize that the Committee were compelled to work for nothing,

and, in many districts, board themselves, we hope to be forgiven for not devoting two weeks last autumn to this service, in addition to the time spent in March.

The Committee, in the performance of this duty, visited fourteen out of eighteen schools. Two of the others were kept in the summer of 1846, and the other two were closed the day appointed by the Committee to visit them, thereby preventing an examination, though the disappointment was unavoidable under the circumstances.

On these occasions, the Committee devoted two and three hours to an examination of the school-room, location, and the school itself; by this means obtaining a knowledge of the several districts, which could not have been acquired in any other way, and at the same time improving the opportunity to commend or disapprove, in presence of the teachers, scholars, and sometimes of visitors, every thing in our judgment, right or wrong, as it deserved.

In the following short reports are embodied the principal facts elicited by this examination, with reference to the past and present condition of the several districts, the improvements already made, and what is still required in order to advance the great cause of common school education.

District No. 1.—This is a very small territory, with but few inhabitants, yet they have accomplished much, because they are perfectly agreed.

They have built a new school-house, which contains a comfortable school-room, and an entry. The room is quite too small, yet well ventilated, &c. The location is good, though the lot ought to be fenced, graded, &c. This district is entitled to much credit for building, because property valuation is very small, and the tax was of course very heavy upon individuals.

The school in this district was one of the best in the town, though not the best. Some of the scholars were unwilling to conform to the improved system of teaching, such as the use of the blackboard, &c., thereby preventing the teacher from imparting all the instruction he otherwise would.

On the whole this district is in a very advanced position.

District No. 2.—This is also a small district, yet the inhabitants have been enough interested to faithfully repair their school-house, at a heavy expense, making therein a comfortable, well ventilated school-room. It has some faults, yet it is well arranged and very good.

The Committee very much regret their inability to visit this school, though from the best information in our possession, the children were well instructed by a good teacher.

District No. 3.—The inhabitants of this district are in the back ground, owning as they do one of the worst constructed, most miserable school-houses in the town—cold, badly ventilated, rough board desks, and slab seats; indeed, without any of the conveniences of a school-room. This house ought to be repaired, or another built immediately; the location is good, if the lot can be graded, &c.

The Committee were unable to visit this school also, though they entered it once just at the close of the exercises. We were exceedingly sorry then to see the teacher in his shirt-sleeves (an evidence that it was too warm in the room,) and to hear him say that the children had been engaged without intermission, for six hours. The school-house ought rather to have been closed that day. Other than this, we are not qualified to speak with reference to the school. We regret to observe, from the returns, that books were used prohibited in the regulations.

District No. 4.—The inhabitants of this district have erected a new and good school-house, though not ventilated, and provided with a miserable heating apparatus, a real nuisance. If these difficulties were remedied, and the room provided with suitable apparatus for imparting instruction, this district might boast of very good provision for the scholars.

The Committee were very sorry to see the teacher of this school also in his shirt-sleeves, because if he was so uncomfortably warm, the scholars certainly were.

This school was not so good as many others, yet of a fair grade. Some of the large scholars were so diffident as to be unable to exhibit the knowledge they undoubtedly possessed, thereby rendering it difficult to judge.

District No. 5.—This district does not own a school-house, and the rooms occupied were in every respect unsuitable for the purpose. A house ought to be built ere another school is commenced in the district.

A very serious, unreasonable difficulty, with reference to the teacher, prevented the poor children from realizing any benefit from the public school. Without mentioning particulars, the Committee are of opinion that the difficulty might in the first place have been avoided, if all the trustees had been engaged, and acted in the premises, without obliging one to officiate singly for the district; and, in the second place, if that trustee had not refused to sustain the teacher in the exercise of his lawful authority.

One trustee, first on behalf of the district, and with the consent of another trustee, employed a young man of irreproachable moral character, and, in our opinion, a good instructor; but, after the school had been kept half of the term, (in consequence of a rebellion against the teacher's authority, which the trustee rather fostered, instead of endeavoring to quell,) it was closed by agreement. The other trustees, after taking the oath, then employed the same teacher for the remainder of the term. Most of the children were sent to this school, though a few attended another kept under the auspices of the trustee who had first acted.

The committee of course were obliged to recognize the school sustained by two of the trustees as the public school, and appropriate the public money accordingly. In this decision the Committee may have erred, but they have been governed by the lawful returns made by two of the trustees, as the only *prima facie* evidence in the case.

District No. 6.—The inhabitants of this district have thoroughly repaired their school-house at a heavy expense, and are now in possession of one of the best in the town, well arranged, airy, and only needing a ventilator to make it very good. The lot ought to be larger and better arranged.

The school was not such as it ought to have been, because the teacher, though perhaps qualified, neglected his duty, and the scholars suffered the consequences. The scholars seemed very intelligent, and were worthy of a more assiduous teacher.

District No. 7.—The school-house in this district has also been repaired and put in good condition, making convenient, healthy accommodations, but, like many others, it ought to be better ventilated and made larger. The lot is in an exceedingly rough, improper condition, though it can be suitably arranged with little expense.

The school in this district was kept, by vote of the inhabitants, for six months, and was undoubtedly worth as much to the scholars as all the others they ever attended. It was one of the highest grade in the town, and in most respects a very good school, though the Committee regretted to see text books in use prohibited in the regulations, as they also did to see the teacher inflict prohibited punishment upon the scholars.

District No. 8.—Though in consequence of the bitter, selfish, and zealous opposition of a prominent, wealthy, and influential citizen, to the reform in common school education, the parents in this district were induced to delay this work until late in the year, they at last aroused, put their school-house in complete repair, and are now enjoying one of the best in the town, though at heavy cost—well arranged, well ventilated, and very good. The lot is too small, though in other respects very good.

The school in this district was also one of the best in the town. The Committee were exceedingly pleased with the manifest improvement exhibited.

District No. 9.—After a great deal of difficulty in effecting a legal organization, and much dispute about a location therefor, the tax-payers in this district have finally erected a new school-house, one of the best in the town, upon perhaps the largest and best location possessed by any district, though the lot needs the application of labor in grading, &c. The school-house is very good, and the Committee can but think it strange that a ventilator was not constructed therefor.

Four or five individuals have kept this district in a continual turmoil, and caused the collector a great deal of trouble and expense, by refusing, for alleged, yet merely nominal reasons, to pay the taxes assessed against

them. The property of some such is now under notice to sell at auction to pay taxes legally assessed; and together with all other proceedings of district, confirmed and legalized, by the State Commissioner and the Legislature at the May session. Through what hole in the wall these refractory individuals hope now to escape, it is difficult to imagine.

The school in this district was nothing more than ordinary, though in some branches some of the scholars did very well, while other important studies were neglected by the teacher entirely.

District No. 10.—This district is not provided with a school-house, and the school was kept in a private house, furnished with slab seats and rough board desks, and with nothing else, much less with what is actually needed. The valuation in this district is very small, though not less than in District No. 1, where a new house has been built, yet the property is divided among so many tax-payers, that for some it will be difficult to pay their assessments, thus rendering it doubtful whether a majority can be induced to erect a suitable house as soon as it will be needed.

The school was of a low grade, which is chargeable in part to the teacher, yet mostly to the want of all the means actually necessary to impart instruction.

District No. 11.—This district has erected, within the past year, altogether the best school-house in the town—well constructed, ventilated, and arranged, chaste and pretty in its appearance. This desideratum has been accomplished with but very little difficulty; and whenever the inhabitants are disposed to grade the lot, and furnish the school-room with suitable apparatus for explanations by the teachers, they can boast of their efforts as worthy of emulation on the part of others in all respects.

The school ranked with the highest grade in the town, and was kept by a teacher worthy the accommodations furnished, and the scholars to whom he imparted instruction. The Committee desire also to commend the zeal manifested by many of the inhabitants, who organized themselves into a reading-school, for mutual improvement and instruction.

District No. 12.—This district does not own a school-house, and the school was kept in decidedly the worst room used for such purpose in the town—exceedingly small, without a ventilator, yet with those relics of the barbarous ages, slab seats, and rough board desks, it is difficult to conceive how the teacher could stay in such a place.

After much difficulty, the Committee are happy to report that this district intends to erect a suitable house immediately, in which the children can sit without being thrust into a pillory.

The school under the circumstances made an advance in education, a sure evidence of what might be accomplished by the children, if favored with suitable accommodations.

District No. 13.—The tax-payers in this district have put their school-house in very good repair, not neglecting that useful appendage, a ventilator, though the seats and desks are badly constructed after as poor models; however, the house otherwise is in a good condition, though the lot is in very bad.

The school was rather more than ordinary—not the highest grade—yet better than most of the schools have been for years past in this town.

District No. 14.—This is the largest and most wealthy district in the town, the valuation being \$190,000. Yet neglect has characterized its proceedings under the Act relating to Public Schools so far, and the trustees have been rather dilatory in the performance of duty; indeed, the accommodations furnished for the public school are not half as good as those provided in District No. 1, with a valuation one-ninth as large. Yet the school-house is a very good building, and only needs being made larger to answer the requirements of the law. The School Committee cannot, in accordance with their oaths of office, suffer the children to be pent up in such contracted, unhealthy quarters during another year.

If the parents in this district will manifest as much interest in the construction of suitable school-rooms, as they have in furnishing the school with Mitchell's Outline Maps, a geological, and much other useful apparatus, which are advantages not possessed by any other district in this

town, they may rest assured that, with a faithful instructor, their children will possess means of education not enjoyed by any others around them.

Yet the inhabitants have done one thing for which they cannot be too much commended; we refer to the establishment, by subscription, at a cost of \$120, of a District Library, free for all residents.

This is a desideratum not yet attained by any other district in the town, and is surely worthy of emulation as an example.

The school was one of the highest grade, though the teacher labored under many discouraging circumstances difficult to overcome; the Committee were exceedingly pleased with the examination at the time of their visit, displaying as it did much intelligence on the part of the scholars, and the faithfulness of the teacher.

District No. 15.—This district owns a new and very good school-house, but for which (at the time of the division of the town into districts, it would have been abolished,) there not being a sufficient number of scholars for a public, or even a private school, at any period of the year.

The house is well built, though with a sad neglect of the modern improvements in such edifices. It is badly located near the highway.

The school in this district was ordinary—not very good—not so good as it would have been, but for the unjustifiable interference of some of the parents, and, we regret to say, some of the officers, with the duties of the teacher, and the regulations of the Committee. Such interference cannot be too highly reprehended.

District No. 16.—This district does not own a school-house. This school was kept in a house very badly constructed and arranged, and poorly located. A suitable school-house will undoubtedly be erected in this district immediately.

The school was kept in the summer of 1846, the Committee being unable, on that account, to visit it; yet, from information in our possession, we are convinced that it was a good school, especially for small children.

District No. 17.—This district does not own a school-house, and the room in which the school was kept is in all respects unsuitable for such a purpose, and cannot answer the requirements of the law. The inhabitants appear to be asleep, and to rest unconcerned, while their children are deprived of an edifice in which to be educated. This should not be so.

This school was also kept last summer; and, from information in possession of the Committee, they judge it was of an ordinary grade.

District No. 18.—This district does not possess a school house, though there are two holden as private property in its precincts, neither of which are such as the law requires, though either might be made suitable and convenient with a small expenditure in additions and repairs. Neither of the locations, however, is convenient for the greatest good of the greatest number of scholars.

This dilatory district was the last to organize in the town, and the Committee regret that the most prominent citizens, esteemed for their integrity and enterprise in business, were not sufficiently interested in the education of the poor children to conform to the Act relating to Public Schools without much effort on our part, and the passage of special legislative provisions with reference to neglected school districts.

The school was, in the opinion of the Committee, of the lowest grade in the town, not because of the ignorance of the scholars, for some among them were as intelligent as any in any other school, without exception, but because the teacher, not really competent at the best, sadly neglected his duty, and the scholars reaped the bitter fruits thereof.

The Committee are obliged to report also that, with two other teachers only, the teacher in this district disobeyed the rules and regulations, by the introduction of prohibited text-books.

The Committee would also report, that a portion of the public money due District No. 6, was expended in the summer of 1846; and, from information in our possession, we are satisfied that the school kept by a female was of a very high grade, much higher than the winter school in the same district.

A very small portion of the public fund was also expended during the winter in District No. 17.

The reports just read express the opinion of the Committee with reference to the present position of every school district in this town—opinions founded on personal observation during the past year. In coming to these conclusions, we may have erred. Probably, in some instances, we have; yet, if so, they have been errors of judgment, and not of heart.

In conclusion, the Committee respectfully ask their constituents to listen to, and, if worthy, heed the remarks that follow, with respect to what has been accomplished, and to what yet remains to be done in this town to elevate the children, especially of the poor, by a practical realization of all the advantages of common school education.

In giving utterance to these opinions, we certainly occupy a disinterested position, free from prejudice, and surely not biassed by personal considerations. After our dear experience in office the past year, laboring as we have, without compensation, with but few thanks, and many curses from the ignorant and selfish, we do not desire to please any by withholding the truth, though we can, by so doing, secure a re-election. We are not candidates for public favor, though we do feel deeply interested in the success of the common school system.

Much, very much, has already been accomplished in this town. Four new school-houses have been erected, and five others faithfully repaired; these, with two others in good condition at the commencement of the year, make eleven, most of which, indeed we may say all, with slight alterations, are such as the law contemplated. In two at least of the seven others, houses will undoubtedly be erected in season for the next winter school, one of which will be the best in the town. We hope that the remaining five may soon be induced to emulate such salutary examples, that all the children in this town may be provided with good accommodations.

With reference to the schools of the past year, the Committee do not hesitate to say, and challenge controversion, that they have been of a higher grade altogether than any that have preceded them in all respects, but especially in the elevated moral character of the instructors employed therein, because this qualification has been insisted on in every instance, while in other respects, perhaps, that the change might not be too violent, the express letter of the law has not been always enforced.

The Committee beg leave to suggest the following improvements as soon as may be, believing them to be indispensable to ultimate success:—

1st. The Committee regret exceedingly that the town, at the annual election, did not appropriate as large a sum by tax, for school purposes, as is received from the State. By the assistance of such an appropriation, the schools could be continued for nine months in the year, which perhaps would be long enough for all practical purposes.

But what can we say of those electors, especially the poor, who madly voted not to raise anything by tax; thus repudiating the proffered assistance of the State, and expressing a desire to rob the children of their patrimony!

The rich are protected in the enjoyment of their possessions, in peace, by the virtue, and in heaven-daring, God-defying war, by the strong arms and brave hearts of the poor around them. It is just that a portion of their property should be applied to educate the children of its poor defenders. No poor father, who consults his best interests, and the welfare of his children, can, for a single moment, hesitate to vote a portion of his little heritage for education, while, by thus acting, he secures the assistance of his more highly-favored neighbors, most of whom, to their praise be it spoken, in Rhode Island, are ready, and, in many instances, anxious to make the sacrifice. We beg our fellow citizens of the poorer classes to examine this subject. Look at the following illustrations:—

At April town meeting, an elector worth twenty-five or thirty thousand dollars, without a child to educate, deposited a ballot against the school tax; of course governed by his love of gold.

Through his influence, a poor man, with five dependent children, followed and deposited a similar ballot; thus deciding to deprive his little ones of

the means of education, while his rich neighbor's portion of the tax would have been sufficient to pay the tuition of his whole family for a common term, and his own portion would have been about five cents! Can men long continue so blinded?

2nd. After careful consideration, the Committee recommend the election of a school committee of three, instead of six, as at present, and that they be paid for their services.

It will be altogether more convenient for three to transact the business than a larger number; and, as the fallow ground is broken, instead of fifteen, they will not be obliged to meet more than five times during the year.

3rd. The Committee recommend more attention to the organization of districts, the election of trustees, &c., and especially the immediate qualification of such officers—a duty sadly neglected during the past year, and causing a great amount of trouble.

4th. A strict regard to the letter of the law, with respect to the erection of school-houses. Many that were occupied of necessity the last year, ought never again to receive the approval of the Committee; and many of those recently erected and repaired, ought to be better ventilated, or shut up, if the fear to expend five dollars for such a purpose can cause them to be closed.

5th. The supply of every school-room with a thermometer, one or more blackboards, Mitchell's series of outline maps, a map of Rhode Island, globes, geological specimens, and other cheap apparatus for illustrating. A good heating apparatus, mats, brooms, &c. The locations ought also to be graded and made better, suitable out-buildings provided, &c. All of these above named, could be furnished by the payment of a very small tax, or by subscription.

6th. A more rigid examination of teachers, and a refusal to recognize the claims of such as are unwilling to add to their stores of information and ability to impart instruction, by attendance on Teachers' Institutes, &c. We are happy to say that the teachers employed during the past year have manifested a commendable zeal in this respect; and we sincerely hope that the great cause of education in Rhode Island may soon receive a new and lasting impulse by the establishment of that only means of making good instructors of our own citizens, a *Normal School*. For this, the friends of common school education ought to labor.

7th. That more attention be given to that useful study, (which has been almost entirely neglected in some of the schools,) Mental Arithmetic. Also, History of the United States, Geology, Physiology, Orthography, Etymology, Composition, Declamation, and Vocal Music.

8th. The establishment of district libraries, by subscription or otherwise—an indispensable requisite to make wise men of our children, after they leave the school where the foundation is first laid. Also, the formation of debating-clubs, reading classes, &c. &c.

Some of the inhabitants of this town have enjoyed the pleasure and rare opportunity of attending a course of Lectures on Elocution, given by Mr. Russell, one of the most able and distinguished instructors in this science. Such advantages cannot be too highly appreciated.

All of these improvements are needed, and some of them indispensable to ultimate success. And, in conclusion, the Committee are ready to ask, if this *town*, now as prominent as any in the country portions of this State in its manifest improvement, shall retrograde in this, one of the greatest reforms of the age? Shall this shameful destiny be ours?

Parents! Children! Remember that "genius and knowledge are endowments greater than nobleness and riches; foolish heirs may the two latter darken and expend, but immortality attends the former, making a man a God!"

Yes, the intellectual powers with which God hath blessed us, and education, or that extensive knowledge which we may attain by perseverance, are the most exalted endowments of heaven-aspiring humanity.

Why, then, will you sacrifice your all for that which is not bread? Or

if the narrow-minded question of interest even is to be consulted, why pay your money for that which satisfieth not?

Why labor so hard, nay, why sometimes fight even to win for your descendants, honors, titles, and riches, when the attainment of useful knowledge is an object so much more worthy of our exalted being and future destiny?

The few, in ruling the many, have deprived them, among other inalienable rights, of the means of educating themselves, and never, beside this glorious common school system, has anything been devised to restore the rights of the oppressed, and place the children of the poor on an equality in any respect with the children of the rich.

Will the poorer classes improve the rising wave that will elevate them and their children to positions of influence in society, by the attainment of knowledge, which is power? Or, will they suffer themselves to be overwhelmed in still deeper suberviency and ignorance in the retiring waters? This question, with the poorer classes, in all respects, is the great problem of the age, on the solving of which their freedom or slavery depends!

Respectfully submitted, by order, and in behalf of the School Committee of the town of Coventry.

CROMWELL WHIPPLE, Sec'y.

Coventry R. I., June 7, 1847.

STATISTICS FOR 1848.

Number of District	NAME OF DISTRICT.	Families						Amount received from Town and State.
		residing in District.	from other Districts.	Boys registered in District.	Girls registered in District.	Boys registered out of District.	Girls registered out of District.	
1	Nichols,	7	5	19	8	4	2	\$63.69
2	McGregor,	9	1	17	7	3	2	59.63
3	Hopkins,	16	1	19	18	1		69.33
4	Rice City,	18		27	19			74.03
5	Aquidneck,	17		23	9			65.67
6	Bowen's Hill,	16		26	15			71.21
7	Spruce,	12	4	25	25	2	2	70.37
8	Town House,	16		22	10			67.45
9	Andrews,	7		16	7			71.21
10	Green,	14	2	23	14	3	3	58.99
11	Central Factory,	20	2	23	17	1	1	74.03
12	Whitman Factory,	12	1	15	11	1		73.08
13	Road,	9		16	7			64.63
14	Washington Village,	52	8	54	47	7	4	110.69
15	Colvin,	21		11	7			58.99
16	Coventry Village,	45		26	38			93.77
17	Taft's Village,	16		26	36			77.79
18	Barrieville,	39	2	40	30	1	2	92.83
18 Districts,		361	26	419	795	23	15	\$1317.50

REPORT OF THE SCHOOL COMMITTEE FOR 1848.

The committee aforesaid beg leave respectfully to submit the following report.

On the 14th day of June, A. D. 1847, the committee met and were qualified by taking the oath required by law, to enter upon the duties of their appointment and immediately organized by the appointment of S. Arnold, Chairman, and B. H. Horton, Secretary.

Their first business was to appoint a sub-committee for the examination of teachers. This trust was confided to Benjamin H. Horton, Esq. who during the year has examined eighteen teachers, who have received certificates of qualification.

The committee also proceeded at an early day to apportion the public money among the several school districts, they having all so far complied with the law the past year as to entitle them to their portion the present.

Most of the districts in the town have got their school affairs so settled that their children are enjoying the full benefit of the public school system, and many of them have schools both summer and winter. But the committee are sorry to say that there are a few districts in which difficulties and oppositions exist which prevent them from deriving that benefit from the school system which in districts that are unitedly in favor of the system, is now enjoyed.

In one or two districts it has required some exertion by the committee to get schools started therein, yet the committee believe that they are now enabled to report with confidence that every district in the town has maintained a school the past year a sufficient time to entitle them to their portion of the public money the present, provided they have and do comply with the law in other respects.

In several districts the schools have fully maintained the high standing in which they were reported for the year ending June 7th, A. D. 1847, while some are believed to have retrograded. But we are disposed to make allowance for this for the reason that several of the teachers were young and new beginners, and lack more by way of experience than education. The committee believe that should the same encouragement continue to be held out by way of compensation to teachers that has been held out the two years last past, in a short time the town will be well supplied with good and competent school teachers, raised up within its own borders.

The committee not having fully received the returns from the several districts, are not prepared to make out a full statistical report, and will therefore state only such facts concerning the progress of school affairs in this town as have come to their knowledge.

And firstly they would say that since their last report, district No. 3, called the Hopkins district, have erected a new school-house, at an expense of \$300, and that now they have a beautiful, pleasant and convenient school-house, in place of an old, dark and inconvenient house, which occupied its place at the date of our last report, and the committee are fully satisfied that they do not regret the expenditure. In district No. 12, called the Whitman district, they have also built a new house, which is just finished, and though the committee have not visited this house since its completion, yet they can say with confidence that they believe that it is what it should be, for those who had charge of the building were careful to consult the committee with regard to the proper manner of building school-houses, and were anxious to erect such an house as would be approved of by the committee. This house will cost the district \$390, which is money well expended, and the committee are highly gratified to think that the scholars of that district will no more be crowded into a room not half large enough to accommodate them. In district No. 14, Washington village district, they are erecting a noble house for the accommodation of their school, which will cost when completed, the sum of \$2000, (has cost already \$2300.) This house is much needed by the district, their old house not being large enough to accommodate the school. The committee believe

that when this house is completed it will be an honor to the district, as well as to the town. In district No. 16, Coventry village, an appropriation of \$1200 to build a school-house has been made, and a building committee has been appointed. In district No. 17, called Taft's district, an appropriation of \$1000 has been made to build a school-house, and the house is now being built. These houses, when completed, will add new and additional honors to our town, and the committee fully believe that it must be highly gratifying to the citizens of this town to behold the great advancement that has been made in the cause of common school education.

But we now come to the dark side of the picture, and it is with regret that we have to report that in district No. 5, called the Quidneck district, the people seem to be decidedly opposed to the public school system, and have voted not to build any school-house, and as the old school-house in said district is such as cannot consistently be approved of, they are in danger of losing their portion of the public money. The rising generation will have to suffer the consequences. District No. 10, called the George Greene district, is without a school-house of any kind, and have been obliged to keep their schools in private houses, which is also a course that cannot be approved of, and they too are in danger of losing their portion of the public money. They have had several meetings in the district for the purpose of deciding upon building a school-house, and thus far have decided against it. There are many children in the district that need the advantages of a good school, and the friends of education must regret if they are deprived of them. We now come to district No. 18, called the Harrisville district; in this district there are two school-houses, both private property, and neither of them exactly suitable for keeping a school in, but as they are private property and probably suit those who own them, we think we have said full as much as we have a right to say about them, but we think these houses in their present condition cannot be approved of as suitable to keep school in, we think the district needs a new house, and as we cannot believe that the people in this district are opposed to the public school system, we trust they will soon move in this business.

The report of the committee made the 7th of June, 1847, was a very full report, embracing every particular connected with the public schools of this town, that presented itself to the minds of the committee, therefore it is considered unnecessary to go farther into detail at the present time.

The committee have to acknowledge that the schools of this town have not been visited the past year as thoroughly as they ought to have been visited. In the fore part of the year, the committee were obliged to spend much time to the neglect of their own business, in order to get the affairs of the districts so arranged that every district might have a school, and from the great amount of time required to perform the duties of the committee, the smallness of the compensation allowed, and the press of individual affairs, the committee have in some degree neglected a very important part of their duty. The committee do not hesitate to say that they fully believe that the visiting of the schools by the committee, or by some one appointed for that purpose, will be attended with good results, and they hope that some arrangement will be made whereby this duty will be faithfully performed.

And in conclusion they would respectfully recommend that for the present year a committee of three be appointed with this understanding, that one of said committee shall be secretary, examining committee, and appointed to visit the schools, with a compensation of \$25 a year, for his services as secretary, and as a committee to visit the schools according to law, and fifty cents fees for each teacher by him examined, provided a certificate of qualification be given, to be paid by the teacher; that one of said committee shall act as chairman of said committee, with a compensation of \$10 for his services, and that the other member of said committee shall receive for his services the sum of \$5. This arrangement would secure a good examining committee,—the schools would be faithfully visited, and the expense would be but little more than the past year.

Respectfully submitted,

SAMUEL ARNOLD,

For the committee.

WARWICK.

REPORT OF THE SCHOOL COMMITTEE, FOR 1847.

To the freemen of the town of Warwick, in town meeting assembled, on the first Monday in June, 1847.

The school committee, in obedience to law, beg leave to submit the following annual report:

The labors of the committee the past year have been directed to carrying out the provisions of the new school law. Among their first acts, they ordered meetings to be holden in the several districts for the election of district officers, in all the districts excepting No. 11, (Potowonut,) meetings were holden and the districts duly organized.

They have also revised and defined anew, where the descriptions were not sufficiently explicit, the boundaries of the several districts, with the exception of No. 13, which is in the hands of a sub-committee.

The committee are much gratified in saying that the districts generally have manifested a decided inclination to carry into effect the new law in its spirit, and the consequence has been that a very perceptible and praiseworthy improvement in our schools has taken place.

Before the present law was passed, our school-houses were bad, and the *public* was destitute of a solitary house to accommodate its schools, depending entirely on individuals and associations for such buildings. During the year much has been done by the districts in furnishing themselves with school-houses, and more is proposed to be done; and the committee trust, and are encouraged to believe, that it will be in the power of all the districts the next year, to have their schools taught in suitable houses.

Out of fifteen school districts, seven have already provided themselves with school-houses, four have houses provided for them by individuals, and two more have made arrangements to have houses built soon, while* two districts are unprovided for.

The whole number of scholars registered as having attended school is 1245, and the average attendance was 890. It would seem that the average attendance should have been greater out of so large a number of scholars. This evil may doubtless be very much ameliorated by particular attention to it by both parents and teachers.

The schools have been visited by the trustees and by the school committee to a commendable extent, and parents and others have manifested a lively interest in this way in the cause of education. The subject of visiting our schools is of an important character, and the committee would here urge it strongly upon *all*, and especially upon *parents*, to impose it on themselves as a *duty* to visit the district schools frequently. By such visits, both scholars and teachers will be delighted, and stimulated to renewed and persevering efforts; and social intercourse, and all the kindly relations of life, will be strengthened and will receive a salutary impulse.

The moneys for the support of the schools this year were derived from the following sources, viz:

From the State,	\$1556 44
From the town, (standing appropriation,)	500 00
From the Registration tax,	203 13
Total,	<hr/> \$2359 57

* Since this report was made, one of these districts has ordered a tax, and will furnish themselves with a house.

Our schools have been opened the past year on an average of six and one-third months, and the amount expended for the instruction of 890 scholars, was two dollars and ninety-eight cents per scholar. The total sum expended is as follows, viz :

For teaching,	\$2403 02
Incidental expenses,	251 83
	<hr/>
Total,	\$2654 85

Balances due the districts of former years' appropriations enabled them this year to exceed in their expenditures the amount appropriated for this year.

With proper economy, the moneys to come from the state and the town, will probably support our schools five and one-half months, at a cost per scholar for that term, of two dollars and sixty cents. To keep the schools constantly open, that is to say, for twelve months, the expense in the ratio of the above five and one-half months, would be six dollars and four cents per scholar, thus requiring an additional sum to be raised of three dollars and forty-four cents per scholar. The tuition fee of one dollar quarterly per scholar, which the law authorizes the districts to impose, it is fair to infer would afford the necessary support to place our schools on a permanent basis.

One dollar per quarter would raise four dollars per annum, where, by this estimate, three dollars and forty-four cents are required.

The appropriations by the state and the town are comparatively feeble in their power to do the intended good, on account of the small part of the year in which, if unaided, they can be effective; and it is indeed very desirable that this imperfection in our school system should be obviated; and most happily the salutary provision in the law, above referred to, empowers the districts to make this very desirable improvement. And the committee are gratified to state that many of the districts have already exercised that power; and as soon as the necessary arrangements can be perfected to accommodate their schools, all the districts will doubtless adopt the same course, with the same commendable object in view.

Respectfully submitted,

SIMON H. GREENE,
For the committee.

CUMBERLAND.

EXTRACTS FROM REPORT OF SCHOOL COMMITTEE FOR 1848.

The constant change of our teachers has been the bane of our schools. One competent teacher, (and none other ought to be employed,) continued in the same school for two years in succession, will, in the opinion of your Committee, raise that school to a higher point of attainment than it will reach in *four* with eight different teachers. And the reason is, that one or two months of the best part of every school term is consumed by each new teacher in ascertaining the dispositions, capacities and attainments of his several pupils; and then he can feel none of that strong personal interest derived from a long and pleasant acquaintance, and indispensable as a stimulus to his best efforts. The last year, we are happy to say, has been an exception to the past, and the fruits are plainly to be seen. Instead of here and there a fertile spot in the midst of a solitary desert, the town is spread out before us as a well cultivated field, yielding an abundant harvest to the parent and child. The Trustees of the Districts, on whose fidelity much depends in the selection of teachers, have honorably discharged the trust reposed in them, and have cordially co-operated with the Committee in their endeavors to enrich the schools with good teachers, and in encouraging and sustaining them in their arduous duties. The time has happily arrived when trustees are beginning to feel the responsibility of their office, and we look with raised anticipations to the period when good teachers will be continued for years in the same school with a reasonable compensation that will induce them to continue in the business and prepare themselves to be as useful as the important service demands. It has afforded us much pleasure in visiting the schools, to witness the result of the wisdom of our predecessors.

Allow us to make a single suggestion to parents. Seek to improve every convenient occasion in visiting the school. In this way you can do much to stimulate and cheer your children and their teacher. We would not ask you to come that you may assist in conducting the exercises of the school; but come to see and hear, and thus give some real evidence that you feel an interest in the subject of education. Children often attend school month after month, and see no parent with them in the room. They begin to think that education is of little consequence, and that it matters not whether they are industrious or idle, as they never see their parents with them in the school-room. They begin to think that their teacher is the only person interested in their progress, and that he is so because it is in the way of his business. If, therefore you have never been in the habit of visiting your children's school, let us affectionately invite you to begin. It will increase your own interest and redouble theirs. Whenever you have a leisure hour will you not come and spend it with your children, and listen to their recitations? Your children will cheerfully apply themselves to their daily exercises when they feel that their father or their mother may be present when they are called upon to recite; for what child will not be ambitious to do well at such a time? But we must leave the subject with you, hoping that you will carefully consider its importance.

As to school-houses, your Committee have noticed decided improvements in some districts. The old and inconvenient houses are giving place to new and more commodious ones, or by a handsome repairing of the old one. This is especially true in districts No. 8, 9, 12 and 6; the latter having erected a house of good dimensions, and with modern improvements.

Some have been repaired, and in one or two instances they have been enclosed by a neat fence. In other districts the houses are the meanest apology for school-rooms. Such may be found in Nos. 7, 10, 11, 14, 17, and 18. If you would make the school-house a pleasant resort for your children, you must invest it with the attractions they find and enjoy at your homes. When you compel your little child to sit six hours a day upon a seat so high that it cannot reach the floor with its feet, and a back so ill adapted to a person of any age as to produce some physical deformity, you ought not to wonder that your child anticipates with dread the hour for leaving his own comfortable home for a place that comports so little with ease and comfort.

In Districts Nos. 19, 20, 1 and 2, (in Woonsocket,) the citizens have generously taxed themselves for the erection of a joint school-house, that reflects great credit upon their far-reaching sagacity and kindness to the young; a house which we doubt not, when completed, will be an honor not only to Woonsocket but to the State. This house, with its necessary appendages, will cost from five to seven thousand dollars. We expect the house will be ready for occupation by the first of October.

In conclusion, we will indulge the hope that the town will, this day, vote a larger tax than they have ever done for educational purposes.* Since 1844, the town has voted a yearly tax of \$1200; but what was sufficient for 1844 will not, in the nature of the case, meet the demands for 1848. The sources of our wealth have constantly increased in every department of labor: with the agriculturist, in making old and uncultivated lands more profitable; with the manufacturer, in the improvement of his machinery and the increase of his spindles; with the mechanic, in the increased demand of the products of their several occupations. And are we to stand still in matters appertaining to the education of the masses? In all other things in the town, our motto has been *onward*. Why, then, have we set limits to our benefactions for the youth of the town? If eternal vigilance is the price of our liberties, let us show ourselves vigilant where vigilance is rewarded with the largest success; let us attempt great things and expect great things.

The amount of money from the Town, State and Registry, was \$2607,81, which was divided one half equally among the districts. Balance, according to average attendance, the year previous.

Average daily attendance in the town for the last year was 855.

By order of the Committee,

JOHN B. TALLMAN.

General School Committee.—L. Wakefield, Osborn Jillson, John W. Tingley, Emulus Rhodes, John B. Tallman.

* We are pleased to learn that a tax was voted by the town for the coming year of \$1500.

BURRILLVILLE.

EXTRACTS FROM ANNUAL REPORT OF SCHOOL COMMITTEE FOR 1847.

The committee distributed to the several districts, of town and state appropriation, eight hundred and thirty-four dollars and eighteen cents; and of registry money, two hundred twenty-nine dollars and twenty cents; making in amount one thousand sixty-three dollars and thirty-eight cents.

The committee were driven to the stern necessity, of going into a thorough revision of the districts in the town; not, however, without being fully aware of the unpleasant, difficult, and laborious task they were about to undertake: knowing as they did, that it would be impossible for them to accomplish this business, and do their duty, without giving some dissatisfaction; for the committee could not know all the little likes, and dislikes, of the inhabitants, nor is it probable, that they could have pursued them, if they had, with any degree of justice. With the old record of the districts in hand, they commenced, and went over with the lines of the several districts in the town. Where they could with propriety, they established the old lines; and where it seemed expedient, and necessary, they formed new ones; which, after three days' arduous toil, they accomplished, how judiciously, they must leave for others to judge.

The committee deeming it of some importance to have a set of rules, for the better regulation of the schools, containing some of the most important duties of the teachers and pupils, they obtained a set of such rules and had fifty copies of them printed for the use of the districts; a copy of has been posted up in every school-room in the town.

The committee have taken much pains in selecting a suitable set of school books, in which they have been much assisted by the recommendations of a State's Committee, appointed in connection with Mr. Barnard, Commissioner of Public Schools, for the purpose of making a selection of the best set of School Books for the State. The circular of this committee, has been in their hands. They also took measures to have a supply of books in the town; from which supply of books, many of the districts were in full, or in part supplied.

Although the schools have not been what the committee would wish the schools of Burrillville to be, yet, they do believe that there has been an advance, a change, and that change for the better. The committee feel confident, from their frequent visits to the schools and intercourse with parents, teachers and scholars, there has been a greater degree of satisfaction in regard to the schools of the past year, than heretofore. Yet the committee would urge upon you, *fellow-citizens*, the great advantage to be obtained by having even better teachers than you have had the past year. You ought to seek out, follow after, and obtain the very best of teachers; as you regard the judicious expenditure of your money, and the time of your children, and not by any means to take up with any one for a teacher who you think you can possibly squeeze through an examination, before the examining committee. But let there rather be an honest emulation between the several districts, as to which shall have the best teacher, and best school; then shall we see our schools advanced, and rapidly too.



NEWPORT.

I. HISTORY OF PUBLIC SCHOOLS IN NEWPORT.

According to Callendar, "so early as 1640, Mr. Lenthal was by vote called to keep a Public School for the learning of youth, and for his encouragement there was granted to him and his heirs one hundred acres of land and four more for an house lot. It was also voted that *one hundred acres* should be laid forth and appropriated for a school for encouragement of the poorer sort to train up their youth in learning. And Mr. Robert Lenthal while he continues to keep school is to have the benefit thereof."

The one hundred acres above mentioned, it is supposed by some, was originally located in what is now the town of Middletown, and in 1661 was exchanged for a tract subsequently known as Newtown, or school land. In 1663, this tract was ordered to be divided into lots, "and to be sold or loaned on condition that the purchasers should pay to the town treasurer an annual rent to constitute a fund for the schooling and educating of poor children, according to the direction of the town council for the time being who are hereby empowered to direct, regulate and manage the said charity in behalf of the town, to the best advantage, according to the true intent and meaning thereof."

The following historical statement is made in a Report of a committee read in town meeting May 16, 1825.

"It is ascertained by your committee, that before the Revolutionary war, from time anterior to any Record now in being, a town school was kept for the education of the youth of this town, and supported from the income of the school lands in Newtown, which were given for that purpose, and the school master was chosen annually when the other town officers were elected, and paid out of the rents of the school lands. In the year 1774, the town school house, which stood on what is now called Washington Square, was destroyed by fire, since which period no school has been supported from the income of the school lands, and the rents and amount of sales of said lands have been received into the town treasury and appropriated by the town to other purposes.

It appears by the books of the town treasurer that from the year 1775 to 1792 there were seventy-eight lots in Newtown, denominated "school lands," for which the town received in rents \$181.42 per year. In the year 1792 a vote was passed by the town ordering said lots to be sold to liquidate the towns debts, and by virtue of that vote there was subsequently sold by the town treasurer 53 of those lots, for which the town received \$1376.83; the remaining lots were rented from the year 1793 to 1811 for \$44.51 annually, and from the year 1811 to 1825 the same were rented for \$40.46 annually.

It will be seen by a schedule herewith presented, that if the money which has been received into the town treasury, from time to time, for the rents and sale of the school lands since the town school house was destroyed, had been invested in stock bearing an interest of 6 per cent per annum, and the interest had been added to the principal annually, it would have amounted on the 1st January 1825 to \$51.283, 34-100, the annual interest on which would amount to \$3.077, a sum more than sufficient for the education of *all* the children of the town.

"The property which should have been applied solely to the education of the children of the town having, under its authority, been thus diverted from its proper object and applied to other purposes for the benefit of the town, it is the opinion of the committee, that the town, if it were actuated by no nobler views, is bound, in justice to itself as well as to posterity, to provide for the support and maintenance of public schools for the education of all the children of the town at the public expense."

In August 1820, a committee of the town, to whom was referred a resolution of the General Assembly calling on the several towns for information on the subject of Public Schools, remark in their report—

"Their duty obliges them reluctantly to state, that except about 20 children educated at the Newport Long Wharf Public School, the children of indigent persons in this town rely on in-

dividual bounty or the limited provision made by benevolent institutions for the small portion of instruction they obtain, the consequence is that a large number are totally neglected, or perhaps through the medium of Sunday schools are taught to spell and read very indifferently. After stating these facts, the committee cannot but recommend that the town instruct their representatives in General Assembly, to unite in their best endeavours to procure an act of the legislature for such general system of Public Schools as their wisdom may devise, and so framed as to ensure to this town its fair proportion of the sum appropriated to the object."

On the recommendation of this committee, the representatives of the town to the General Assembly were instructed "to use their best exertions to procure an act of the Legislature to establish a general system of Public Schools."

At a town meeting held on the 17th of March 1825, the following votes were passed.

"The meeting having been called to take into consideration the propriety of introducing into this town the free school system of education, the following resolution submitted to the Freemen by Dutee J. Pearce Esq., (after an animated debate) passed in the affirmative.

Viz: Voted and Resolved that it is expedient and just to establish free schools in the town of Newport to be supported and maintained at the expense of said town.

It is further voted, that a committee consisting of seven persons, viz. Richard K. Randolph, D. J. Pearce, Charles Cotton, Benjamin W. Case, Delleville Geo. Telley and John Sterne be and they are hereby appointed to digest a plan for carrying into effect the free school system of education adopted this day, and to report the same to the Freemen for their consideration at some future town meeting."

This committee, by its chairman, submitted in May an elaborate report, in which the following plan of a system of public schools is recommended.

"1st. Voted and Resolved, that three Public Schools be established in this town for the education of all the children of the inhabitants, of both sexes, and that the said schools be supported and maintained at the expense of the town.

2nd. Resolved, that the said Public Schools be conducted under the Superintendence of a school committee to consist of nine freemen, to be chosen annually at the town meeting in June, when the other town officers are elected.

3d. Resolved, that three school houses be provided at the expense of the town, to be located as conveniently as may be for the inhabitants of the several districts. That one of them to be 30 feet by 50, one story, 10 feet high, be placed on the Day lot in Cross Street, or on such other lot as may be deemed by the building committee more suitable. That one of the same dimensions be placed on some lot, to be purchased by the committee in behalf of the town, conveniently located for the southern district, and that the said committee be authorized to contract with the rector, wardens and vestry of Trinity Church, for the use and occupancy of the church school house, and to repair and build an addition thereto, at the expense of the town, whenever the committee aforesaid may deem it expedient, or to build a school house and locate it on some suitable lot for the middle district.

4th. Resolved, that the faith of the town be and it is hereby solemnly pledged to reserve \$2000 yearly and every year, for the support and maintenance of Public Schools and for school purposes, out of the money raised by tax, and that whatever amount shall remain unexpended of this sum shall be added to the school fund, until its amount shall warrant a reduction of the tax pledged for that purpose, in the opinion of school committee.

5th. Resolved, that the school committee shall be trustees of the Public School fund, and shall have the direction and control of the same under the direction of the town.

6th. Resolved, that it be the duty of the school committee to engage and employ competent preceptors, agree with them for their salaries and pay them quarterly by orders on the town treasury. They shall designate the bounds of the several school districts, and alter them from time to time as they may deem expedient.

They shall examine scholars before admission, and as a general rule give certificates of admission to those who have attained their seventh year and can read intelligibly, but in extraordinary cases the committee may use their own discretion. They shall meet once in every month for the transaction of business, and shall have power to make rules and regulations for their own government when assembled, and to alter and amend the regulations of the schools, with the approbation of the town.

They shall visit the several schools in a body, quarterly, and shall appoint one of their own number for each district for a weekly visiting committee, whose duty it shall be to report to the monthly meetings every thing worthy of notice relating to the schools."

The question on these, and other resolutions to carry them into operation, were debated the whole of one day; and were finally adopted.

In June (20th) 1825, the town under the lead of several of its most influential citizens reconsidered its former action, and passed the following vote.

"Whereas it appears that serious doubts are entertained by a large portion of the freemen, whether the present corporate powers of the town extend to the building and maintenance of school houses and Public Schools, by taxes upon the property of the inhabitants, and whereas it is always desirable that plans for public improvements, however feasible and promising they may at first appear, should be free from all doubts of their legality, and should unite the cordial support and approbation of the inhabitants generally, without which the usefulness of such plans must be greatly diminished, if not over balanced, by the mischiefs which ever result from disunion and contention among the inhabitants of the same town ;

Therefore, It is resolved that the several votes heretofore passed relative to the establishment of Public Schools and school houses, and to the means of supporting the same, be, and they hereby are, repealed—and that the further consideration of that subject be deferred until some plan generally approved and cordially supported by the inhabitants shall be devised, and until the town shall be expressly empowered by the legislature to carry such plan into execution—if upon mature reflection it shall still remain doubtful whether the town already possesses such power.

Resolved further, that the tax ordered to be assessed at the town meeting on Monday the 7th inst. be and is hereby reduced to the sum of——— and that the same be assessed and collected as provided at said last mentioned meeting. Resolved, that———be a committee to enquire fully into the situation of all donations heretofore made for the purpose of educating poor children and to report thereon as soon as may be, in order that the town may forthwith adopt such measures as prudence and justice may dictate, to collect and apply all such funds to their proper object."

The friends of education were however able to secure a vote, memorializing the General Assembly—

"To pass a law to authorize the town of Newport to erect, establish and maintain Public Schools for the education of the youth of said town, and to make such rules and regulation for the government of the same as the Freemen may deem expedient and proper. Providing such rules and regulations be not in contravention of any law of the state ; and to authorize the town to assess and collect any tax that may be deemed proper for the support and maintenance of the same on the rateable property of the inhabitants of said town, in the same manner as other town taxes are assessed and collected."

The application was successful, and the town was authorized to appropriate annually eight hundred dollars out of the public tax for the support of Public Schools, and to apply the avails of certain lands which had been bequeathed to the town for this purpose. In pursuance of a vote of the town at a town meeting held in February 1826, a lot in Mill Street was purchased for a school-house, and a committee was appointed to take charge of the erection of a building thereon. This committee reported in March 1827, as follows.

"The committee appointed by the town to superintend the building of a public school house, respectfully report ; That having purchased a very eligible lot in Mill Street they have erected thereon a school house 60 feet long and 36 feet wide, of brick and stone, two stories high, which is now so far completed that the upper room intended for boys is nearly ready for the reception of the school ; the cost of the lot and building up to this period is about \$2750. To defray this expenditure has absorbed the funds placed at the disposal of the committee consisting of the following items, viz :

Nett sales of Gallows field,	\$891.24
Appropriation by tax for 1825,	800
Net balance of rent of Theatre,	180
Donation of Mr. Wm. Vernon,	100
Appropriation for 1826,	800
	<hr/>
	\$2771.24

The committee are of opinion that to finish the upper room for the accommodation of the boy's school, and fence in the lot will require about \$200 additional resources."

At the same time measures were taken by the town to establish a fund from the sale and rents of school land, the avails of licences, &c. in aid of the public school of the town.

At the same meeting, March 25th, 1827, the following Resolution was adopted, which was the opening of the first public school in Newport on the present system.

"Resolved that a school for boys on the Lancasterian or monitorial system be commenced as soon as may be, under the following regulations, viz :

1st. That a committee, (to be hereafter annually chosen at our June town meeting,) consisting of five persons, one of whom shall be a resident in each of the town wards, be immediately

appointed, to be denominated the "Public School committee," who shall have power to appoint school masters and assistants, fix their compensation, regulate the admission and discharge of scholars, (having a special regard to the laws of the state on this subject,) provide books, stationery &c. and in general superintend and manage the schools in conformity to the laws and orders of the town.

2nd. The school committee shall be, and they are hereby, authorized to draw on the town treasurer for any sum necessary to meet their expenditures, not exceeding the annual appropriation for school purposes, and they shall also receive the tuition money hereinafter named, and apply it to the current expenses of the school, and shall present their accounts to be audited by the town council on the first Monday in June in each year.

3d. In order that the benefits of the school may be extended not only to the most indigent of our citizens, but those also whom industry and economy place above want, the following very low rates of prices for tuition shall be established, viz:

For the alphabet, spelling and writing on slates, 25 cts. per quarter.

Continuance of ditto with reading or arithmetical tables 50 cts. per quarter.

Continuance of the last with writing on paper, arithmetic, and definitions, \$1.

The preceeding, with grammar, geography with the use of maps and globes, book-keeping, &c. \$2. No additional charge for fuel, books or stationery.

4th. Scholars shall be admitted at any time, on application to the committee and payment of the tuition money.

5th. The regular quarter days however shall be the first school days in February, May, August and November, on which days payment will be required in advance of every child in school for the ensuing quarter.

6th. Of scholars admitted on other than the regular quarter days a rateable payment will be required until the end of the current quarter, unless the admission be within the first two weeks of the quarter, in which case the whole quarter must be paid for, or within the last two weeks, when the coming quarter must be paid for, without including the fortnight.

7th. The object of the foregoing scale of prices for tuition is to foster and encourage the honorable feeling of independence in those parents who wish to educate their children at their own expense, but whose limited means are insufficient to pay the customary rates. But it is at the same time hereby expressly provided that no child shall be excluded from the benefits of the school merely from inability to pay for his tuition.

8th. The Public School committee shall perform their duty gratuitously, the honor of the station and the gratitude of their townsmen is to be their only reward.

9th. Until the recurrence of the June town meeting the following persons shall compose the committee, viz:

Nicholas G. Boss, Edward W. Lawton, George Engs, James B. Phillips, Theophilus C. Dana."

II. REPORTS OF SCHOOL COMMITTEE.

Report for 1828.

"The Public School Committee of the town of Newport respectfully report, that since the commencement of the Public School in Mill street on the 21st day of May 1827, the number of applications for admission has been 337, of which there have been rejected as not coming within the provisions of the law, 33

Suspended for further consideration, 25

Admitted, 279

337

Of the scholars admitted 67 have been withdrawn or dismissed, leaving the present number 212

In the selection of the scholars the committee have endeavoured strictly to comply with the resolution of the town, and the law of the state, in admitting those only who were 'not otherwise provided with the means of education.' In considering the list of applicants, the most needy, according to their best information, were first admitted, and it is gratifying to them to state that, although at first some apprehensions were entertained that the room would not accommodate all who were entitled to admission, they have been able (after every exertion on their part, both by public advertisements and personal representation, to obtain suitable applications) to receive all those candidates whose cases came within the spirit of the law. The pupils have generally been attentive to the duties of the school, and have made considerable progress in their several studies. The greatest difficulty the committee has met has been in enforcing constant attendance at school, and the same culpable indifference to the benefits of education which prevented some parents from making application for admission of their children, has been shown by other parents in not using their persuasion and authority to compel the punctual attendance of their children after they were admitted, instances in the latter class have been comparatively very few, and wherever remonstrance or representation on the part of the instructor or committee has been ineffectual, a suspension of the

delinquent from school has been resorted to. The small amount required quarterly of each scholar has been found to have a very salutary effect, for those who pay are generally speaking the most attentive—there are some exceptions, and the school in some instances is a blessing to those who are quite destitute of the means of payment. The committee consider it advantageous to the school to require payment of all those who can by any means afford it, (as the sum required is insufficient to defray the expenses of books slates &c.) and they are fully of opinion that if the school was rendered quite free it would be less beneficial, and would probably be regarded like other common bounties of very little value. The Lancasterian system adopted under the resolution of the town, was, to most of our fellow citizens, as well as to ourselves a novel mode of instruction. But whatever doubts may have been entertained as to its efficiency they have been entirely dispelled by the success of the school during the past year, which has surpassed the expectations of its most decided advocates, and has satisfied them of the superiority of the monitorial system for a large school, over all others. The school under the superintendence of its present able instructor (to whose abilities, attention and perseverance the town is greatly indebted for its success) bids fair soon to be numbered among the most useful of the system, and to be the means of educating and training to habits of industry that part of our population who so much need and who are so well entitled to the opportunity of obtaining instruction. The lower room in the building is nearly completed for the reception of pupils and the committee, believing it to be the wish of the town, have engaged a young lady who is well qualified for the business to take charge of the girls' school, who will probably be ready to commence in about three weeks, and the committee take the liberty to recommend the same plan of discipline and instruction for that school as has been practiced in the boys' department.

The accounts and vouchers for the past year were presented to the town council yesterday, and by them audited, leaving a balance due to the committee of \$202.01, as will appear by the following abstract.

Received fr m town treasury under the appropriation of 1827,	\$600.00
Scholars pay 1st quarter,	56.96
do. " 2nd quarter,	61.37
do. " 3rd quarter,	68.53
Balance,	202.01
	<hr/>
	\$988.87
Paid Instructor's Salary,	600.00
Printing, advertisements, &c.	11.04
Interest on acceptances,	9.47
Books, Slates, Stationery &c.	187.35
Stove pipe, fuel, benches, book case, painting, &c.	181.01
	<hr/>
	\$988.87

The balance of the appropriation of 1827 (being \$200, was expended by the building committee in completing the building.

For the Committee,
NICHOLAS G. BOSS, *Secretary*.

Newport, June 3d, 1829.

Condition of the Public School Fund in 1828.

Donation by Governor Fenner,*	\$100.00
" Governor Collins,	50.00
Licences,	154.37
Legacy of Constant Taber,	1500.00
Sale of Warden (school) Lot,	325.00
Estate L. Begua—having no being in United States,	23.63
	<hr/>
	\$2153.00

* Governor Fenner, instead of giving the time-honored "treat" to the people on election day, made a donation of one hundred dollars, (the usual expense of the "treat") for the benefit of the public schools of Newport.

Report for 1844.

THE committee on public schools, in proposing to make their present report something more than a bare statistical account of doings, expenses and wants, are aware that they are adopting a course which is quite new in this town; but so far from deeming an apology necessary on this score, they have felt that in view of the condition and prospect of things, justice to their fellow-citizens required them to make not only certain special suggestions, but some general remarks on the important subject entrusted to them,—the subject of public education.

The circumstance just alluded to, that any thing more than a statistical and specific report on the schools is rather novel in this place, leads the committee, naturally, to begin at once upon the state and prospects of public education in the town. In doing this they will naturally present those circumstances and considerations which have induced them to give their report the shape it is to assume.

The committee are happy to state that they can clearly perceive an increased interest, within a year or two, on the part of our community, in the matter of education, and that they can bear witness to the improved condition of the schools, both in the culture of the mind and in the culture of the manners. They are particularly happy to remark that the very important subject of discipline is receiving wholesome attention; and although there have been, undoubtedly, occasional excesses on that score, they feel confident that hereafter parents will have no just occasion of complaint.

The committee must, however, protest, most respectfully and earnestly, against any charges or complaints being brought against the teachers, excepting through the committee themselves, who will endeavor to examine all such cases calmly, and decide upon them as justice and humanity require.

The committee are certainly of opinion that all pupils, who cannot be disciplined by a degree of severity short of cruelty, ought to be remanded to their parents, and not be entrusted to other hands. They repeat, however, what they believe all who have been in the habit of visiting the schools will sustain, that both in mental and moral discipline, a great improvement is perceptible, and they repeat, in general, that our community seems to have been awakening, within a few years, to a new sense of the importance of public education. It is not, perhaps, of much importance to inquire into the cause or causes of the improvement alluded to. The committee, however, cannot but think that much must be ascribed to the awakening influence of surrounding example; and they respectfully suggest to their fellow-citizens, collectively and individually, the reasonableness and advantage of studying the accounts which are furnished of the educational doings in other States and towns, as published for instance in the Boston Common School Journal, the perusal of which cheap semi-monthly, would amply repay any family in entertainment, instruction and even wonder. They would also recommend to attention, the volume (recently presented to the Redwood Library) of the Connecticut Common School Journal, edited by Mr. Henry Barnard, formerly agent of other States, and now employed by our own Legislature, a gentleman who, by his rich experience, sober enthusiasm, sound judgment, and steady energy in the cause, is doing a work amongst us which every good citizen should awake to appreciate. The committee would also recommend Horace Mann's last report of his personal observation of the European educational systems, perhaps the most moving document ever written on the great subject, and which no citizens of a free country, it would seem, could possibly peruse, without being provoked to a noble emulation.

But the committee would return to the point from which they have for a moment digressed, whatever may have been the cause or causes of our

improvement, such improvement, they submit, has taken place, and they would now say in regard to it, that while it suggests encouragement, it also suggest admonition. What has been done reminds us of what may be done and ought to be done. We are, as a town, yet somewhat slow and backward in appreciating the importance of this matter of public education. There is a great diffusion of intelligence, of mind, in this community, but the public spirit in regard to intellectual matters, bears too small a proportion to the amount of intellect and information, wisdom and experience, which exists in a scattered form among our citizens. We understand the power of the social element in politics, and in religion, but not nearly so well in matters pertaining to mental improvement. In this important matter, the scattered sparks are not suffered to run together and kindle into a general blaze of social sentiment.

The committee would respectfully inquire of their fellow-citizens, what subject of general interest is of more importance than the general education of the people and their children? Is it politics? But where are your children to learn to be good citizens? What safety is there for a free State, but (under God) the free school? What more efficient antidote to the demagogue than the pedagogue? Who can look back, who can look around him over our own land, and say that politics constitute anywise more momentous a subject than the early education of the citizen? Will it be said that home is the proper school? Without insisting now on the great advantages of letting the future man mingle with the future men in the little world of the public school, we will say, if parents would, in the first place, and, in the second place, if they could, be the educators of their children, happy were it. But the question is, what, under the circumstances and necessities of our condition, is the paramount interest? We say, and we say confidently, public education. Who can look out thoughtfully on this multitude of children that throng our streets, and wharves, and are growing up to take the places of manhood, who can think of the question whether these boys are to be the pillars of society, or to make the pillars tremble, and not feel that this matter of public education is unspeakably important? If religion is important, this is; for who has not knowledge enough of history, to say nothing of things always passing in the world around us, to see that religion itself, without an accompanying mental discipline, may easily become the producer or promoter and perpetuator of the wildest enormities of error and of crime.

The committee, therefore, earnestly beseech the attention, the personal and practical attention, of their fellow-citizens to this subject. And if any ask now, what shall we do in relation to it, they would answer, you can do your part towards having schools enough, and good enough provided for the children; you can encourage the committee and assist them by counsel and co-operation, and the teachers and the pupils by your presence and by your care.

To begin with the last point first, the committee regret that so few parents are in the habit of attending the quarterly examinations.

They also take occasion to repeat themselves, upon the importance of parents seeing that their children are regular in daily attendance. They have found themselves obliged to make a by-law depriving any scholar of the privileges of the school for the remainder of a given term, who during that term shall have been absent fifteen times. But in general, they would simply remind parents how much they can do, by noticing or neglecting their children in the matters of punctuality, neatness, deportment and diligence, towards helping or hindering the arduous labors of the teachers.

Leaving such matters to the good sense and common conscience of every one concerned, the committee pass now up to the prior and higher duty of their fellow-citizens to provide such school and so many as the public wants may require. In the first place, more schools seem to them to be imperatively demanded.

The committee have been astonished to learn that there are nearly 900 children in this town, between the ages of 5 and 15, for whom no schooling is provided. Mr. Manchester reports the whole number of children in town, over 5 and less than 15 years of age, to be nearly 2000; of these,

680 are provided for by the existing public schools; and the 30 private schools which they have ascertained to exist, averaging 15 pupils, give 450 more, making in all 1130 capable of being seated in the existing schools, and leaving 876 unprovided for. Evidently, then, there is an irresistible call for schools. And the committee consider that two primary schools are immediately wanted, one in the lower part of the town, near the factories, and the other in Broad street, whence too many children now seek admission into the Point schools. The committee also feel that another intermediate school is needed for those pupils who have to leave the Primaries, and yet are not fit for the Grammar Schools. But this they do not at present so strenuously insist upon, as on the increase of primary schools, for which they have been inundated with applications they could not meet.

In relation to the other point suggested, namely, the character of the schooling given, the committee feel bound to express the opinion, that the time is come for an advancement in our upper schools, upon higher branches of study than have yet been pursued. In one or two of the schools, many of the scholars have for some time been expressing a strong desire to remain at school longer, and go on with certain of the more interesting and important of the advanced branches. And the committee would respectfully ask, if it is not time that something of natural and mental philosophy, of political economy, and of the important subject (particularly in this country,) of the science of government, and the duties of citizenship, should be taught to our pupils before leaving schools, at which most of them may receive their last instructions, except the bitter ones of experience? The committee would ask, if such subjects as these they have named are not something more than mere accomplishments—if they are not essential parts of a common school education; essential parts of that education which every free community ought to be trying, at least, to devise some way of furnishing its rising generation? Is it not time, in short, that we began to think seriously of carrying our school system to its proper height, while we attend to the enlargement and expansion of the base?

If any ask why these higher branches, to which the committee have alluded, are not already taught in the upper schools, they reply, that it would be crowding too much upon the teachers and depriving the lower studies and students of the attention due to them. They cannot be pursued without some additional provision being made.

Intending, however, merely to awaken prospective thought on this subject, the committee would content themselves, for the present, with simply suggesting, that if the public schools are worth sustaining, they are worth sustaining well; and if so, they ought ultimately to be made good enough for all classes of the community; for the committee are satisfied that the common school system can succeed perfectly, or as perfectly as is possible for human affairs, only when "the rich and poor meet together," in the public school. Then the wealthier classes would feel a personal interest, (as they certainly have a personal interest, if they only thought of it,) in sustaining and elevating public education; then the poorer classes would be encouraged to lay hold of the instruction offered; and above all, (which is a very important consideration for this country,) that senseless cry, which sets rich against poor and poor against rich, would be put into a very effectual way of being heard no more.

Leaving then, this grave matter to the reflection of each and all, the committee would say one word in regard to the intellectual furnishing of the schools already in existence. And here they would merely state, that they have found it necessary to introduce an apparent confusion in the books used, for the sake of introducing, gradually, according to the calls for new books, a uniform and simple system. They found themselves greatly embarrassed and perplexed by the multitude and variety of manuals in use. The Committee are decidedly of opinion that too much account has been made of books, and too little of teachers, in the school system generally. The business of book-making has in their opinion, been carried to an extent, greatly to hurt the cause of education. We want the men, the minds, to act upon the minds of the children and draw them out into action to stimulate and to train them; such men cannot generally be had without

money. And the committee hope that the wisdom of their fellow-citizens will dictate to them, in these matters, a liberal spirit and policy. If we would have teachers who shall feel the importance and dignity of their calling, and shall feel free to devote to it entirely, and as a settled thing, all their time and talents, they must be sufficiently remunerated. The committee are satisfied that the public will find the money laid out in securing the services of experienced teachers, able to attract the attention, command the respect, and discipline the faculties and feelings of children, return to them with tenfold interest, in the increased interest, improvement, zeal, and virtue of the rising youth in their midst.

With a few specific statements and suggestions, the committee will now close their report. The treasurer reports the receipt, during the past year, of \$1766 59 from the State; \$1,600 from the town; and \$203 21 from the tax levied on the scholars, amounting in all, to \$3,569 80. Of this sum \$3,000 have been paid for salaries; \$113 for fuel; \$228 24 for stationary of 1842-3; and \$228 41 for incidental expenses; \$196 54 remain in the town treasury, and the outstanding debts amount to about \$400.

The committee close, therefore, with recommending—That two new Primary Schools be established, one in Broad street, or thereabouts; and the other in the extreme lower part of the town; and that the sum of \$2,000 be appropriated by the town for the coming (town) year to the purposes of public education.

All which is respectfully submitted, by R. J. Taylor, C. G. Perry, Wm. Brownell, Wm. Gilpin, C. T. Brooks, Augustus Bush, Joseph Smith, Thatcher Thayer, David King, James A. Greene, E. F. Newton, School Committee.

Report for 1848.

THE school committee of the town of Newport, in rendering the account of their stewardship for the year now closed, respectfully report: That there are under their care, seven primary schools, a school for colored children, three intermediate or grammar schools, and a boys' and girls' senior department; the last of which, from necessity, embraces in it an *intermediate* school, and is taught by a principal and assistant, and has accommodations for ninety pupils. These schools, containing nearly nine hundred pupils, are under the direction of qualified and diligent instructors. They have not only maintained their former good standing, but most of them have made advances. Since the last report, the course of studies has been enlarged in every department, a more rigid classification of scholars instituted, and a more close and careful examination exacted, for admission to the higher schools [For the details of which, the committee refer to the rules and regulations recently published and distributed.] The result of these arrangements is seen, in the high appreciation of the schools by our townsmen, and the increased desire and more numerous applications for admission to a share of their advantages.

For the first time, since the establishment of the public schools, the committee have found themselves so straitened for accommodations and means, as to be compelled to refuse admission to some applicants; while at the same time, a parochial school, attached to one of the religious societies, has withdrawn a large number of boys who were formerly in our schools. Private schools, which have, heretofore, met the wants of the wealthier classes, no longer compete with those of the town. The advantages afforded by the latter, in the nicer classification of pupils, in the uniformity of school-books, as well as in the constant and zealous supervision of the school committee, are all understood by the people.

In this condition of things, the committee believe, that their fellow-citizens will not only justify them in the suggestion of measures for greater improvement, but that they will meet these suggestions with a response.

The first step, and not the least important in the economy of education, is the provision of convenient and comfortable school-rooms. The essential elements in these are location and space.

The location of a school-house is a point worthy of deeper consideration than it seems (from the present condition of things) heretofore to have received. In the school-room, our children spend a large portion of their earliest and best days; here they receive their first and most lasting impressions. If the place of their confinement be dark, and contracted, and unsightly, it necessarily produces a chilling influence on their feelings; and from the strong power of association, bound up with their nature, throws a gloom around their pursuits, dampens their energies, and gives to the spot, (which, to be useful, ought to be pleasant,) the repulsive aspect of a prison. In these places, and at this period of life, tastes and habits are formed; over these, this same power of association exerts a mighty influence. The influence of this power, as regards the *companionship* of youth, is fearfully felt by every parent, and cannot be doubted respecting the *places* where they receive their most important training.

The proper location of a school-house is on a dry and elevated site, removed from the noise and dust of the street, and from all sights and sounds of idleness and dissipation, with ample room *without* for recreation and exercise. It is the want of a suitable *play-ground*, which makes the school-house an annoyance to the neighborhood where it is placed, and the public school objectionable to parents, who regard the health and morals and manners of their children.

The *size* of a school-room should have reference not merely to the proper seating and convenient evolutions of the scholars but to the cheerfulness, comfort and health of the inmates. This point has been strangely overlooked. We have seemed to act on the principle of stowing away as much live matter as possible in a given space. Mr. Lancaster, who consulted the most rigid economy, in his plans of school-houses for the poor, allowed an arena of 9 square feet, and 150 to 180 cubic feet of space to each pupil.

Dr. Alcott, in his prize essay on school-houses, recommends a space of not less than four feet square to each, which, with the ordinary height of school rooms, would make the same allowance in cubic feet.

And Mr. Mann, in his report on school houses, the latest and the best exposition on the subject, without fixing a minimum of space, handled with great severity, that miserable economy, or oversight, which would stint our children in the use of pure air, which is poured forty or fifty miles deep all around the globe.

The best efforts of the committee, with the means at their disposal, have lamentably failed in these desiderata. The largest area afforded to a pupil in the places rented by your committee, is eight and sixteenth square feet, and 80 cubic feet of air; while the smallest area is but six square feet and 48 cubic feet of air.

To illustrate this point more fully, the committee would ask the serious attention of their townsmen, to a few well authenticated facts and principles.

The atmosphere is mainly composed of two elements, usually called nitrogen and oxygen, bearing in a pure state, the proportion of seventy-eight per cent. of the former, to twenty-two of the latter. Wherever there are living beings, this state of things is continually changing. Combustion changes it, but not so rapidly as the respiration of men and animals. Vegetation also changes it; and so does decomposition or putrefaction, but less rapidly, also, than respiration. The principal causes of change in the condition of the air in rooms, are combustion and respiration.

The greatest change which is induced by these causes, consists in the diminution, the using up, as it were, of the oxygen, or vital air, and the substitution in its place, of carbonic acid gas. This change takes place very rapidly where respiration *alone* is going on; but where respiration and combustion are *both* going on, the change is *fearfully* great.

During every breath we draw, we consume a part of the oxygen, and leave in its place, a quantity of carbonic acid gas. Every breath, therefore, naturally renders the air slightly impure. But, in a large room, or in the open air, we do not breathe the same air over again, for it becomes mixed more or less with other air.

In order to approach as nearly as may be to the truth on this subject, it may be well to make an estimate which every one can understand. It is stated, and no doubt truly, that an adult person in breathing, spoils about a gallon of air in a minute. Suppose, however, that children in a school-room, spoil it half as fast. This would be half a gallon a minute. Sixty pupils would spoil thirty gallons, about a barrel of air a minute; this would make a hogshead in two minutes. Suppose them to continue in their seats an hour, and suppose there is no escape for the bad air which is formed, then these sixty pupils would, in that hour spoil *thirty hogsheads* of air. Now, this air is not only *spoiled*,—not merely rendered *useless*, but is actually rendered more or less *poisonous*. How poisonous is not yet known, but *certainly* poisonous. However, setting aside its poisonous nature altogether, it is utterly injurious to breathe spoiled air, where the lungs, in order to act properly on the blood, require at every breath that which is perfectly pure and uncontaminated.

Compare these facts with the size of the rooms, (before described) which your committee are constrained to occupy, and the risk of health to our children will be seen to be truly appalling.

The committee have spoken of the good condition of the schools; it is only in the way of comparison. They by no means intend to say, that the present arrangement is *perfect*, either in itself or in its execution; but that under the circumstances which encircle them, they are in as good a state as they well could be.

A still better classification in the primary schools is essentially needed. While the number of scholars in these schools may not be too great for a single teacher, the number of *classes* is decidedly so. Could there be accommodation for more children in the same room, with an assistant teacher, it is confidently believed, that decided benefit would accrue.

Schools strictly *intermediate*, the primary and the grammar schools, are indispensable to a well ordered arrangement of a school system. These *as such*, do not pertain to *our* system. Our intermediate and grammar schools are not sufficiently distinct; but lapping (as it were) on each other, each partakes somewhat of the character of the other, so that transfers are now made from the primary to the intermediate or to the grammar school, and from these indifferently to the senior departments.

Again, the girls' senior department has the characteristic of all three classes of the schools.

It will at once be seen, that this state of things unavoidably creates embarrassments, and of course hinders progress and improvement.

With a scrupulous regard to the best interests of the schools, and with untiring efforts for their advancement, the committee have not yet, with the means under their control, been enabled to rectify these evils, or to remove the embarrassments connected with them. What is needed is *strictly* intermediate schools, from which pupils may pass when qualified, into the grammar schools: from the grammar schools should be removed what they now have in common with the intermediate, and the course of study in them should be raised, so as to embrace the lower classes, at present, in the senior departments. With this arrangement, the course of study, in the senior department, could be made to comprise all that is required to a finished English education, and each aspire to an elementary classical course. Then our town would once again stand on the high ground it occupied years long since past, when its educational privileges drew youths from remote parts of our country, some of whom have been found among the great and good of the land.

In view of these circumstances, with the most careful consideration of the best means of providing for present exigencies, the committee earnestly recommend to the town, the erection of a school house large enough for two hundred pupils, in some place which shall be found most expedient.

The committee are fully persuaded, that this is not only the best course, but that it will prove to be altogether the most economical in a pecuniary point of view. It is not meet or just, that any child in the town should be denied its lawful share of the moneys appropriated to public schools, yet this must be done, unless there be provided ample accommodations.

The committee append the report of their returns, from which it will be seen, that they are compelled to ask of the town an increased appropriation of five hundred dollars:

Amount on hand from last year,	\$2 83
Received from the State,	1766 02
" Town,	2500 00
" Registry Tax,	259 83
" School Tax,	447 09

\$4975 77

Amount paid for salaries of teachers,	\$3737 37
Stationery,	419 30
Rent,	223 00
Fuel,	148 20
Repairs,	36 84
Incidentals,	397 29
Cash on hand,	13 77

\$4975 77

Mr. Barber's bill unpaid, \$282.

Jno. Sterne, A. H. Dumont, S. Ward, A. Bush, Ed. Clarke, J. Smith.
C. L. Brooks, C. G. Perry, Wm. Brownell, T. C. Dunn, Wm. Gilpin, Jos
B. Weaver, *School Committee.*
Newport, June 1848.

BRISTOL.

HISTORY OF PUBLIC SCHOOLS.

From Notes by Rev. Thomas Shepard.

In the original settlement of Bristol in 1680 the Proprietors, being men of cultivated minds, and sound Christian principles, made liberal grants of land "for the common improvement, for the encouragement, and use of an able Orthodox Minister, and for the use and encouragement of an able school master in said town." The first recorded acts of the citizens in relation to schools runs thus; "Sept. 1682, voted that each person that hath children in town ready to go to school, shall pay three pence the week for each child's schooling to the school master, and the town by rate according to each ratable estate shall make the wages to amount to 24£. the year. The selectmen to look out a grammar school master and use their endeavour to obtain 5£. of the cape money granted for such an end." "Sept. 1684, voted 24£ the year for Mr. Cobbitt, he officiating in the place of a school master in this town."

The annual rents of these lands, together with the income of certain other lots given by individual proprietors, and occasional appropriations by the town for teachers' salaries and the erection and repairs of school houses, sustained such instruction as the citizens of the town were permitted to enjoy during the first hundred and twenty-five years. The records show that for most of this period one teacher only was employed for the whole population.

Within the present century, separate schools were instituted on that part of Bristol leading to Warren called the Neck. Until as late as 1830 it was the custom to provide one male teacher for the compact part of the town during the whole year, a female for each of the districts on the Neck in summer, and a male in each of the same in winter.

The record shows that from 1828 to 1838 the sum expended annually for instruction averaged a little short of 800 dollars. This sum was obtained from land rents, state appropriations, and other sources, without resorting to a direct tax except for the building and repairing of school houses. The reception of the state Dividend of the proceeds of U. States public lands gave a new era to the public schools in this town. From 1838 to 1845 the town appropriated about \$2500, in building and repairing school houses. In 1838 the public school in district No. 1, embracing the whole of the compact part of the town, was confined to one room and under the care of a principal, with one, and sometimes two, assistants, with a summer primary school in an unfinished room above. The progress of ten years has wrought out a complete classification of this one school into four departments, designated, the Primary, Intermediate, Grammar and High School, located in six rooms, two of which are furnished with recitation rooms, and employ each an assistant; instead of three teachers we have nine.

At the annual town meeting in the spring of 1839, the town responded to the recommendation of the committee and voted to appropriate from the moneys to be raised that year for town purposes, \$500, for the support of the teachers in their public schools. This sum has been generously increased from year to year, according to the suggestion of the school committee, until it has amounted to \$1400. The whole amount expended for instruction in our public schools the current year is \$2900. The present number of schools is nine. The present number of teachers is twelve.

Number of pupils in all the schools, 500. We receive children as soon as they understand the alphabet, and carry them up regularly through the four departments into the higher branches of mathematics, such as Algebra, Geometry, Mensuration; also into Philosophy, Composition, History, and such other branches as are taught in our best regulated academies; not omitting the Latin language, where instruction is desired.

The greatest inconvenience we now suffer is the want of sufficient room. The town have authorized their Committee to erect two houses of stone, at an expense not exceeding \$1200 each, for two primary schools in the north and south sections of the district No. 1, that shall accommodate 100 pupils each.

The town have also appointed a Committee to consider and report, at the next annual meeting in April, on the expediency of erecting, near the centre of the town, a suitable house for the accommodation of the two higher departments of the public schools, and if they should judge such a house to be needed, to report the plan and probable expense of the same.

These valuable improvements in the history of our public schools, have been materially promoted by the recent efforts of the General Assembly, through the labors of their indefatigable State Commissioner. The meetings of the Institute for teachers, held in this place November, 1847, did us much service. We have also been favored with many valuable lectures. But in addition to all these, and without which all these means would have been of little avail, we have had members of the school committee of the town who have gratuitously consecrated much of their time and anxious toil to this good work, year after year. Opposition, at times, has been violent; but the good sense of the community has followed generously upon the heels of those who have led the cause of public schools onward, and now it is believed that there are few among us who do not feel and acknowledge that the money expended in furnishing the rising generation with such facilities for an accomplished education is the best investment that can be made of the public funds.

II. REPORTS OF SCHOOL COMMITTEE, BRISTOL.

Report for 1838.

The committee for superintending the free schools in the town of Bristol would respectfully submit to their fellow citizens the following report of their doings for the past year:

The first efforts of your committee were directed to the supply of school No. 1 with a teacher, and they are happy in the consideration that after much inquiry and correspondence they were directed to the selection of one whose labors have thus far proved highly satisfactory to all concerned. During the whole of the year this school has been full and overflowing, and its order and advancement such as to reflect much credit upon the diligent efforts of its principal and assistant teachers. Highest number of scholars in attendance during the first quarter, 270; average attendance, 230. Second quarter, highest number, 250; average attendance, 220. Third quarter, highest number, 280; average attendance, 260. Fourth quarter's attendance much the same as the third.

Such an increase of pupils above what has been common hitherto, has created the necessity of an increase of teachers. It has also led to the fitting up of another room for a winter school, where sixty of the young children have been taught during the two last quarters. Notwithstanding the sending out of such a colony, the place has been too strait for us, and we have been under the necessity of closing the door against several applications whom we should have been happy to accommodate had we a single seat remaining unoccupied. During the whole of the year two female assistants have been employed in this school, and during the latter half of the year, we have found it necessary to add a third.

Your committee, under the direction of the town, have erected a commodious and substantial school-house in the North district, at the expense of \$300. The schools in the North and Middle districts have been kept during five months in the summer each, and during four each for the winter. Also a school on Poppasquash during several months in the summer.

Your committee have visited these several schools as often at least as once each term, and are happy to say, that in general, their order and improvement have been commendable to their teachers and satisfactory to ourselves.

The amount of the salaries of all our teachers during the year, is \$1124. Expenses for books, stationery, fuel, rent of Dr. Brigg's Hall, with an old debt for stationery, \$393 42—making the whole amount of disbursements for the year \$1517 42. The receipts of the year from various sources already paid in, or due, \$905 00. Quarterly assessments upon the schools, \$241 62. Total receipts \$1146 62, which leaves a balance due from the town, of \$370 80.

In accordance with a vote of the town, your committee have contracted for the repairing and securing of the windows, and the fitting up of the upper room of the academy, at an expense of \$225. A still further appropriation of about an equal amount will be needed in rendering this building a commodious place for such a school as is demanded at the present moment.

Your committee are decided in their opinion that the due advancement of common education among the youth of our village, imperiously requires that school No. 1 should be divided according to sexes, and located in different buildings. The size of the room now occupied is altogether inadequate for the accommodation and health of the numbers which are literally *pressed* into it. Besides, we think it must be obvious to every one acquainted with the subject, that the mingling together of such a multitude of youth of both sexes in the same apartment, and often in their sports where the eye of the teacher cannot follow them, cannot but be fraught with much evil, especially to the early manners and morals of females. Too long already has this practice been tolerated among us. The pernicious fruits are but too manifest in the rough and uncourtly habits of many of our children in the streets and around the fire side.

The committee would therefore earnestly recommend that a sufficient sum be added to what has already been appropriated for the repairs of the academy, that its lower room may be also put in order with the entry and stairs; that a convenient inclosure with a high tight board fence be made at least on two sides of the house, with the necessary appendages for a retired, and convenient school for females exclusively, and that the committee be authorized to provide such teachers as they may deem necessary for the proper instruction of the same.

Such a separate establishment when put in operation, will, it is believed, add but little to the sum now expended in the support of one which is under the care of four teachers. And when it is considered that the room now occupied will be well filled with male scholars, probably not less than 200, and that the other sex will be removed from many of those unhappy influences to which they are now exposed, and be placed in far better circumstances for moral and mental culture, will not the freemen of Bristol feel it due to the cause of education and the good of the rising generation, to come forward promptly and unanimously with the necessary means to carry into speedy operation the plan herein proposed?

According to the best data within our reach, the committee calculate that the funds to be appropriated for the coming year from all sources will not fall short of about \$1340. And that after the receipt of the fourth installment of the United States Surplus Revenue, which is expected in January next, our school funds will amount to \$1550. This sum, if realized, will be sufficient if not embarrassed with arrearages, to sustain the full operation of our schools, according to the improvements herein suggested. What is now called for, in the opinion of your committee, is that the town would promptly cancel its debts, and complete the repairs already begun upon the academy.

With these suggestions, we beg leave to submit the question to the citizens of Bristol, the parents and guardians of the rising generation among us, whether the deep and growing interest now waking up in every part of our land, and throughout the Christian world, in the cause of popular education, ought not to move us to correspondent effort in the same good work? Have we not as a community pressing occasion to awake to new and vigorous action in behalf of the intellectual and moral cultivation of those who are soon to occupy the places of their fathers in the responsible stations of civil and religious life? If we cannot catch the full spirit of the age and move on in this good work with equal step with sister towns and states, ought we not so to quicken our pace so as not wholly to disappear in the distance?

Most respectfully do we submit the following resolutions for the consideration of the freemen of the town at their next annual meeting:

1. Resolved, That it is expedient that school No. 1 be divided according to the sexes of the scholars, and that the females occupy the house commonly known as the academy.

2. Resolved, That the committee for superintending schools be authorized to complete the necessary repairs within and about said academy, so as to render it in all respects a convenient place for the occupancy of a female school.

3. Resolved, That the sum of \$300, be appropriated from the funds of the town to defray the expense of such repairs.

WILLIAM THROOP,
FRANCIS PECK,
THOMAS SHEPARD,
ZALMON TOBEY.

DISBURSEMENTS.

Salary of Mr. Gushee, school No 1,	\$500 00
“ of two Female Assistants, No 1,	288 00
“ of one Female Assistant, six months, No. 1,	36 00
“ of Miss H. B. Church, five months, middle district,	70 00
“ of Miss Cole, five months, North district,	55 00
“ of Mr. Tanner, four months, middle district,	80 00
“ of Mr. Mason and Mr. Boutelle, North district,	80 00
“ of Miss Taylor, Pappasquash,	15 00
Rent of Dr. Briggs' Hall,	12 00
Books and stationery, including an old debt for do. of \$23 38,	311 95
Wood and sawing, including an old debt for do. of \$15 75,	69 47
	<hr/>
	\$1517 42

RECEIPTS.

Quarterly assessments upon the scholars, probable amount,	\$241 62
Received from the School Treasurer,	197 00
Expected appropriation from the State,	316 00
“ Bank Dividends,	200 00
“ School Lands,	192 00
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	\$1146 62
Excess of disbursements,	\$370 80

Report for 1845.

In compliance with the usage of past years, as well as from a sense of duty to their fellow-citizens from whom they have received their appointment, the committee for superintending the public schools in the town of Bristol, would respectfully submit the following report of their doings: The past year has been to your committee, one of more than ordinary labor and solicitude. Probably more than quadruple the time usually spent in this

service, has been devoted to the improvement of the schools under their care. The actual benefits resulting from these efforts, time must determine. Your committee are happy in the belief that they have not labored in vain, nor spent their strength for naught. The "Regulations" which they have adopted after mature deliberation, and printed and circulated for the improvement of the public schools, have manifestly resulted in securing a far more punctual and constant attendance of the pupils. It is believed that the absences have been diminished full three-fourths, since the introduction of the Regulations. Since it has become an object of some effort and solicitude both on the part of the parent and the child, to gain admission to the privileges of the school, and to retain them, there has been awakened a deeper interest in the value of such privileges. The experience of past years has confirmed the proverb, that a thing highly valuable in itself, may be greatly depreciated and made of little worth, by its being too cheaply attainable. The good effects of punctuality and the constancy of attendance at the allotted hours of school, have been very manifest in the order and proficiency of the pupils. Doubtless, experience may suggest alterations and amendments to these regulations in future. But in their adoption, the committee are conscious of aiming at no other object than the highest welfare of the cause of primary education. And in their operation thus far, they have the satisfaction to know that this object has, to a very good degree, been answered.

Agreeably to a vote of the town, the lower part of the brick school-house has been entirely remodeled, and commodiously prepared for an intermediate department, with a convenient drawing-room for recitations, and suitable out-buildings. By the same authority also, a well-built and commodious house of instruction has been erected in the north district.

The select school, under the care of Mr. D. S. Gushee and Miss E. Wyatt, his assistant, has been conducted with its usual ability and success. In this school, occupying two convenient rooms, the higher branches of an English education are taught to youth of both sexes, as is designed to qualify them for the common business of life.

The intermediate department, under the management of Miss A. D. Reed, has been conducted in a manner highly satisfactory to the committee. Aided by the superior accommodations of the rooms, with the valuable assistance of Miss Thompson, Miss Reed succeeded, with an unusual facility and decision of government, in bringing order out of confusion, and in elevating this school to a standard of excellence, highly gratifying to all concerned. In consequence of the resignation of Miss Thompson, Miss Mary Vaughn has been appointed assistant teacher in this department.

A primary school has been kept in operation in the upper room of the brick school house, during five and a half months, under the care of Miss Abby Bosworth. This department was conducted in a manner acceptable to the committee, and would have been continued through the winter, but for the unfinished and exposed state of the room. The number of pupils in this school ranged from 25 to 35.

The school in the middle district has been kept nine months, under the care of Mr. N. Tanner. The number of scholars, in attendance during the summer, averaged 48; during the winter, 34.

This school, we regret to say, has not succeeded so well during the past winter, as in former seasons. A spirit of insubordination has manifested itself among the older scholars, which has greatly interrupted its order and progress. A system of government, kind and affectionate in its spirit, and yet firm and decided in its execution, is greatly needed in the school, to win the affections of the pupil, and bring them back to order and mutual confidence.

The school in the north district has been continued eleven months, under the care of Miss Phebe Bradford. The average attendance during the five months of summer, was 31; during the six months of winter, about 35. It is due to Miss Bradford to say, that she holds a high rank among the teachers of public schools, both as it respects government and instruction. The district have acted wisely, in securing, at the suggestion of the committee, her services for the winter. The old house was abandoned at

the close of the summer term, and the new one entered at the commencement of the autumn. We congratulate the inhabitants of this district in the acquisition of such a commodious house, and in the careful use, and good account to which it has thus far been devoted. We hope it will secure the respect and good usage of the whole district.

The committee are happy in the conclusion that the public schools of Bristol are gaining the confidence of the community, and that the number of the pupils, the constancy of their attendance, their orderly deportment and proficiency of studies, are on the advance. And that with a careful supervision and a thorough discipline, they will reach a standard of perfection which will not fail to satisfy the educational demands of the whole population.

The receipts of the year have been as follows :

From the General Treasurer of the State,	\$818 57
" the Treasurer of the Town,	1100 00
" N. Coggeshall, School Treasurer,	386 96
" Registry Tax,	119 19
	<hr/>
	\$2424 72

The expenditures for the same period stand as follows :

Repairs connected with the Brick School-House,	\$226 26
Salary of Mr. D. S. Gushee,	\$500 00
" of Miss E. Wyatt, 3 1-2 qar.,	118 50
" of Miss Reed for do.	216 25
" Miss Thompson for 2 quar.,	67 50
" Miss A. Bosworth, 22 weeks,	36 00
" Miss M. Vaughn, 17 weeks,	42 50
" Mr. N. Tanner, 9 months,	245 00
" Miss P. Bradford, 11 months,	133 00
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	\$1358 75
Testaments for the several schools,	\$25 00
Publishing Rules and Regulations,	17 50
Sundry repairs, stoves, and fuel,	43 37
Sundry contingent expenses,	22 36
	<hr/>
	108 23
Arrearages for Teachers' salaries previously to the present year,	\$425 15
Arrearages for stationery and fuel,	29 08
	<hr/>
	454 23
	<hr/>
Total,	\$2147 47
Balance subject to the order of the Committee,	\$277 25

Thus, it will be perceived that from the funds which have been placed at the disposal of the committee, the respective schools have been carried on through the year, and the arrearages of former years to the amount of \$454 23 paid up, with a balance of \$277 25, remaining in their hands.

At the commencement of the year, the committee passed a resolution that the expenses for books, stationery, and fuel of each school should be graduated by the amount of the assessments collected in said school. The result shows that, although there is a small balance against the committee on this score, it is much less than has been usual in former years. If this matter is carefully looked after by future committees, the assessments from each district may soon be made sufficient to meet all the necessary exigencies of the respective schools, so that what is raised annually from the town, the State, and school land, shall be appropriated wholly for the purposes of instruction.

From the surplus of the year, the committee would recommend the appropriation of \$100, for the purchase of four sets of Mitchell's Outline Maps, with a suitable number of copies of the Key annexed, one set for each school. From personal inspection, we are satisfied such an arrangement for the study of geography, would not only give the pupils greater facility for acquiring this important science, but that it would prove a

source of economy in dispensing with the purchase of a geography and an atlas for each scholar.

The committee would also recommend that the upper room in the brick school-house should be finished and prepared for the accommodation of the primary school through the year.

In reference to the year to come, the committee would state that in consideration of the settlement of arrearages and the surplus remaining in their hands, the appropriation of \$700 from the town treasury, will be sufficient to meet the exigencies of the year. With this sum at their disposal, together with what may reasonably be anticipated from other sources, your future committee will be furnished with the means not only of sustaining the existing schools in successful operation, but will have it in their power to set in operation one or more primary schools in such portions of the town as are at an inconvenient distance from those now established. The success of past years in the gradual increase of public patronage upon the improvement of our schools, has been too manifest to allow any falling back in this best of causes. We should lament exceedingly, any retrograde movement by our fellow-citizens assembled, to consult and provide for the best welfare of the rising generation. The citizens of this State are now waking up on all sides to the improvement of public schools. In fact, it is one of the chief topics of solicitude by the wise and good throughout New England, and the whole country. We sincerely hope the people of Bristol will not, through neglect or mistaken economy, barter away a birth-right of more value to their posterity than thousands of gold and silver.

All which is respectfully submitted by your committee.

THOMAS SHEPARD, *Chairman.*

WM. B. TILLEY, *Secretary.*

Report for 1487.

In submitting their annual report, the school committee may well feel some delicacy in soliciting that patience which is necessary to a full hearing of their extensive statements and reasons. The indulgence granted on former occasions, and the consciousness that their fellow citizens are no less than themselves concerned in the subject, furnish the warrant on which we venture. It shall be our endeavor to enter into no unnecessary discussion, and detain you with no profitless or irrelevant remarks.

We might, in very general terms, say that the public schools have been conducted on the same plan which received the cheering approval of the town last spring; that the slight amendments to it which experience has suggested, leaves the main features entire and the operations unimpeded; and, that in their general management and improvement, the schools have been prosperous beyond any former precedent. This indiscriminating statement, however, does not render justice to those whose talents and industry have exalted them above this general praise, any more than it confers the blame which may righteously be attributed to any instance which has fallen below it. Neither the excellencies or defects of any mode of discipline or teaching are made apparent by this general statement. Fidelity to our trust will demand considerable freedom of expression that we may "nothing extenuate," while at the same time we seek to shun offensive personalities. We know of no reason why we should not be accredited as speaking impartially when discussing matters relating to the public schools.

It is a pleasure to mention, as we may with confidence, the prosperity of the schools in the centre of the town. Without an exception they are at once an ornament and a blessing to this entire community. For punctuality in attendance, orderly conduct, completeness of discipline and thoroughness of instruction, they may safely challenge a comparison with those of any town of the same size in our vicinity. Our citizens may well feel an honest pride in the encomiums bestowed upon them by visitors who are

extensively acquainted with common schools in other sections of the country. What is of equal value too, they are constantly improving. Notwithstanding several changes in the office of teacher, which we have labored as much as possible to avoid, the schools have been conducted with a regularity heretofore unknown. Cases of complaint have been few, and these, it is due to the parents to say, have been met with a wise forbearance and in such a manner as not to molest the quiet nor disturb the steady operation of the discipline of the schools. While these have been constantly becoming more worthy of the confidence of the community, the patronage has as steadily increased, as is manifest from the great accession to the number of scholars in them. For a portion of the year, notwithstanding the great increase of accommodations, the seats have not only been filled, but in several of the schools they were not sufficient for all who desired to attend.

The South Primary School, which, according to their instructions, the committee were able to open at the commencement of the year, has prospered exceedingly, both under the care of its former excellent instructor, Miss Batt, and its present efficient one, Miss Coit. During this period it has been almost the whole time crowded to excess. Were the room sufficiently large we presume that there might be quite an addition to its present number. We would suggest to the parents in that section of the town the importance of allowing their children to enter the intermediate school, when their attainments will permit, and thus make room for a younger class of scholars. The distance of the walk may be greater but the advantage is greater too.

We would direct the attention of the parents especially to the structure and arrangement of the seats in that school room. Though somewhat more expensive in the first outlay than those formerly in use among us, the committee are convinced that when the ease of the scholar and the quietness of the school are taken into account, it is much cheaper to furnish each scholar with a separate seat. Actual experiment shows also that it is the best economy of room. Two of the primary schools are arranged on this plan.

We are not prepared to recommend any change of the location of this school at present. Through the kindness of Gov. Diman the room now occupied and conveniently fitted up may be longer possessed, although we hope ultimately to see a building erected with sole reference to the accommodation of such a school.

The North Primary School has continued during the whole year under the excellent management of Miss Howe, and has been rapidly winning the favor of the inhabitants in that section of the town. The improvement of the scholars has been very manifest, and that under the most decided disadvantages, arising from its unfavorable location and its unpleasant internal appearance. Situated on the great thoroughfare of the town and within a step of the pavement, every passing vehicle and every footfall sends its echo into every corner of the room. Every strolling boy has it in his power to annoy by exercising a most unwelcome supervision upon the school. Besides these inconveniences, the health and happiness of children so young demand that there should be a vacant spot where they may exercise their sports. This school, less than any in town, has such a privilege. The purchase of a site and the erection of a suitable building seem most imperiously to be demanded. Would it not be better economy to pay the interest on a sum of money sufficient to defray that expense than it is to pay nearly or quite that sum for the rent of a very incommodious and unhealthy room. We submit it for your consideration, with this passing remark, that the success of the teacher and the large attendance of scholars warrant a larger share of attention than has hitherto been bestowed.

The Center Primary School has been subject to an exchange of teachers by the voluntary choice of the lady who was engaged at the commencement of the year. The school was not congenial to her wishes. The committee are convinced that a task of greater difficulty than instructing a primary school is not encountered in the business of education. Many teachers who would succeed well with older scholars have not the peculiar natural tact required for the management of very small children, and

the same exertion that would secure entire success in another branch may leave the individual completely dissatisfied with the measure obtained here. We may say for the confidence of parents that this school was never more flourishing than at present. Miss Easterbrooks has few equals in the faculty for controlling and instructing children. Everything moves along under her management in quiet and perfect regularity. Everything used is well used and preserved with tidy care.

The only remaining primary school is that which during six months was kept on Poppasquash by way of experiment. The attendance was not large and nothing occurred which should claim an especial attention in this place.

Before dismissing these altogether it may be proper to indulge some general remarks respecting them and their relation to the cause of general education. The experiment of the town for the last three years is complete and it is no longer doubtful whether this community need and will sustain three grades of schools or not. It is clear that provision should be made for the education of *every child* in the community from the time when it has arrived at a proper age for attending school, until it has had an opportunity of acquiring a thorough common school education. Were the town ripe for it we should ask much more, even that the means might be furnished to all who should choose to accept them, of acquiring the branches of the higher English studies and of laying the foundation for a classical education. With a much less sum of money than that actually expended now among us in securing a very ordinary education, every youth in this community desirous of it might be carried to the required amount of knowledge for entering college. And while none would be poorer for such a provision, the entire mass of society would be richer.

Without indulging in any Eutopian scheme, and limiting ourselves to actual verities, much more than has formerly been attained may be reached under the present system, and this advantage will every year be, under good management, on the increase. The attainments in the two lower grades will be advanced, and thus a higher and larger sphere be left to be occupied by the select school. The primary schools will play an important part in producing a result so very desirable.

We hope the justice of the claims of the teachers in this department will be carefully weighed in that very important item of a salary. Your committee have not felt at liberty to offer what their sense of right told them that these might demand. Few young ladies of equal attainments with those in your service would consent to labor in any other employment for the small sum of one hundred and thirty dollars per annum. Nor will these any longer than they wait an opportunity to improve their wages. Changes therefore must be the direct consequence of these small salaries, and the advantages which experience has given them in our schools will be reaped by those who will give a more liberal compensation. What gives this probability greater power is that in the larger towns and in the cities around us there has been a great advance upon the remuneration formerly given.

The Intermediate School has continued its even tenor of success though under the control of different teachers from that of the last year. Instead of the permanency on which we insisted in our last annual report, our expectations have been frustrated by that Providence which treats none of the schemes of men as inviolate, whether public or private. Miss Hunt, after having given general satisfaction for two quarters was compelled to abandon her place and seek a climate more congenial to an enfeebled constitution than ours. We should have regarded this as very unfortunate had there not been at hand a teacher thoroughly proved in another department whose services we were able to secure. It is saying much for Miss Wyatt, and yet not more than she has richly earned, to say that she has fully maintained the high reputation of the school which her predecessors had earned. Those scholars who thought to enjoy special liberties under the tuition of a female, have learned that she has the capacity to govern and enforce salutary rules, and quietly have consented to yield to authority so firmly and reasonably exercised. We are pleased to be able to say

that exclusions for unruly behavior are becoming less and less frequent as scholars become better acquainted with the character of their teacher.

The Select School, still under the management of the able instructor who has several years stood at its head, continues still to advance. So far as we have the means of judging, there has never been the year when the progress of that school has been more rapid and gratifying to all concerned. Each succeeding examination during the year has furnished decisive evidence of the ability and fidelity of the teacher, and also of the industry and docility of the scholars. The value of a system is apparent in every part of the operations of this school. The continued and increasing confidence reposed in the teacher is the best commendation that can be bestowed. It would seem that persons abroad were aware of the value of his services, and their attempts to allure him away by more lucrative offers have made it necessary as well as just to raise his salary or risk the loss of his services. This, we presume, the public would not warrant us to do, and his pay was made greater than it has formerly been, and probably it is now not far from an average with the salary of persons in similar situations abroad.

Of the Middle District we ought either to say very much or nothing at all. Justice to all the parties concerned demands that we enter somewhat minutely into a narration of the history of the last year.

It will be recollected that at the annual meeting of the town, persons residing in that section complained loudly of the condition of their school the previous winter—stated that they had been abandoned by the committee, and that the course which had been pursued in consequence of previous difficulties had been highly detrimental, almost suicidal to them. They asked the town for the regulations which had formerly created so much discontent and seemed desirous of having their school conducted on the same plan with the others. The committee, believing that experience had at length taught them what they themselves were eager to do sometime previous, were desirous when they entered upon the duties of their office to do whatever lay in their power to retrieve the mistakes of the past. The school-house, which had been sadly abused the previous winter, was put in complete repair at a much greater expense to the town than had been calculated upon, nearly sixty dollars being expended where we had anticipated only a small outlay. The services of a teacher, who had instructed their children several years, was secured *at the suggestion of prominent men in that district*, and with the understanding on the part of the committee that the choice was made by them. A much larger amount of funds, than has heretofore been expended on that district, although there has been no increase of scholars, was demanded to carry their request into operation. The school opened prosperously. Every thing succeeded to the most sanguine expectations of the committee. No complaints were made. Order was complete and the proficiency in the studies very obvious. The examinations and the reports of scholars showed a wonderful improvement. The friction of the regulations had worn off. The teacher obeying his instructions and the laws was giving great satisfaction to those most intimately acquainted with his labors.

Thus matters proceeded in general quiet during more than half of the year, until in the second month of the third quarter, when a class of older scholars entered the school. These almost immediately manifested some reluctance to comply with those rules which had produced the state of things which we have noticed. They attempted to test the mettle of their teacher, encouraged, as some of the parents have openly confessed, at home, to disobey his commands. Collision was inevitable. The question was practically started who should rule—or at least who should decide upon the propriety of the rules. The teacher happened to be a man who would not submit in such a crisis—took a decided stand against disorder and interference—insisted in no very meek, and, as the committee afterwards said, in objectionable terms, upon his determination to do so. His decision none can censure. His language, reported in a very different sense from what he, with good reason, maintains was intended, gave great umbrage to one of the parents in this district. Whatever might have been the error of the teacher, that of this parent was certainly far greater. Dis-

regarding the prudent and legal mode of redress he rushed directly over the law and the peace of the district by going to the school-house and in the presence of a part, and with the knowledge of the whole of the scholars, calling the teacher to an account. Every one in the least familiar with schools knows what license will be borrowed from such an act, and what courses pupils will pursue when they have the hint that parents are with them against their instructor. The committee were not unmindful of this and foreseeing how fatal would be the permission of such a precedent, felt bound to interpose some preventive. In mild but direct terms the gentleman was reminded of his violation of the law and his exposure to its penalty, while at the same time, as the committee were reluctant to push the case to extremity, they recommended him to settle the affair with the teacher. Both parties met, together with two members of the committee, and after explanations separated with an explicit understanding that the affair was settled, and that nothing further should be done to interrupt the peace and prosperity of that school. Neither health nor help came from this agreement. From this time opposition and accusation were rife there. Children were taken in numbers from the school. The teacher was insulted and threatened with personal violence. Charge accumulated upon charge against his conduct in the school, and reports seriously affecting his moral character, were industriously circulated abroad in the community—crime too was insinuated which is punished with the severe rigor of law. The attention of the committee was directed to these reports but we could do nothing until some definite accusations were presented and proved. Our law doth not condemn any man before it hear him. A day was appointed for a full hearing of all parties. After a tedious examination of quite a number of the scholars we could discover no adequate cause for cashiering a teacher, who, though not infallible, had done much to make the school what it ought to be—whose greatest fault, if fault it were, had arisen from his anxiety to reach that end. We passed a series of resolutions in which his determination was applauded, his language reproved, and the parents censured and urged to a better mind, and a cessation from all hostilities. They fell dead to the earth.

A few days past, and then came a petition from several individuals requesting the use of the school-house in the Middle district for the accommodation of a school to be supported by them. The effect, not intended we presume by them, would have been to break up a public, in order to make room for a private school. Knowing that the law gives us no warrant for transferring the property of the public to private use we were compelled to decline this proposition.

Heroic perseverance still pressed on, to what precise aim we do not understand. Another petition came requesting us to commence preliminary measures to procure the incorporation of that school into a district.

Well aware that such a measure would prove a calamity to that district, *however pleasant it might be to the committee*, and, further, that the work then commenced must pass over all the town before it could be allowed to pause, we thought it just to forbear the exercise of a power whose use is discretionary with the committee by the statute of the state, their decision always being subject to that of the town. There the subject now rests, to be presented to you at the approaching session. We shall in another part of this report occupy your attention with considerations which would be foreign in this place and which we therefore defer.

The school has continued under the management of the same teacher, by all confessed to be thoroughly qualified for his work. Notwithstanding the embarrassment under which he has labored, and the small number of scholars in attendance, the school has prospered more than at any former period. The last examination was one of the most gratifying we have ever been permitted to witness in a common school. The complete accuracy of the answers, the entire mastery of the subjects studied, and the perfect order maintained were such as we have seldom witnessed. If we may judge from the reports of the scholars this has been uniform. There were scholars who had recited during the whole quarter without committing

more than two or three mistakes, some less even than this, and one had not made a single error during the whole term.

We have spoken as we promised to do without reserve, and without partiality. It will avail little with any to defend ourselves with professions of disinterestedness and desire for the general good. If the committee are not so known in this community as to render a personal defence unnecessary then let those be chosen in their place in whom greater confidence can be reposed. We are well content to commit our labors to our fellow citizens for their verdict.

The North District School is the only one of those established in the town that has not continued the whole year. This has been taught nine months; during the first six months it was admirably managed both in reference to government and instruction. Miss Luther succeeded in gaining the respect and affection both of pupils and parents, and we have heard but one opinion expressed respecting her teaching.

The repeated complaints of members of that district that they were unfairly treated by having a female instructor placed over their children during the winter months, induced the committee to appoint a time for meeting with that district, discussing the subject with them, and coming to some definite agreement. Less than a dozen persons were present, and after we had set before them the advantages arising from the continuance of the same teacher and from having the school maintained during the whole year, not one of those present advocated, nearly all were decidedly against the employment of a female teacher, let her abilities or success be whatever it might.

Unwilling to force, what we were fully convinced would prove, a blessing upon them, we yielded to their desire and secured the services of a teacher who had taught in different parts of the country and who brought recommendations highly creditable. His examination was all that we could desire, more than we thought was needed. He was a gentleman most amiable and worthy, with whose name suspicion cannot be familiar. But he was not successful as a teacher. Under the inefficiency of his regimen, disorders abounded, a faint image of which has not for years exhibited itself in that school, under the administration of any teacher, whether male or female. The recitations were as unsatisfactory as the conduct. Three or four large boys for whose especial benefit the time of instruction was shortened from six to three months, kept the school in riot for a little more than one month, and were then excluded. These facts are trumpet tongued. To give four boys the instruction which a female teacher was entirely competent to give, something more than one month and exclude nearly forty children from all essential advantages for six months does not read well. This is not quite democratic. It is amazing partiality against which the others have a right to complain, and we hope they will complain aloud. We regard the money, and what is of far greater worth, the time of the scholars, as lost by this experiment. It is our firm conviction, that the teacher employed during the summer could have moved quietly and firmly along, having the arrangements of the school complete, and order established much better than has actually been done. Here is the result of choosing a raw teacher twice in a year. The means of rectifying incipient disorder, are taken out of the hands of the committee. They are, if humane, unwilling to break down a young man for slight reasons. They hope that the failures which they detect and point out at first, will soon be remedied. It will take some time to decide the question whether he can succeed or not, and if he has been engaged only for three or four months, his time of service will be approaching its close. Every generous sentiment will then say, let him depart in peace, and thus the whole time is thrown away. Nay, worse, bad habits are contracted, which will require another quarter to eradicate. A bad school is a lasting curse which may inflict inveterate disorders on society. We think that at the very slightest estimate, the North District have lost a full six months of valuable instruction by their choice. The future must answer for it. This ruin is not under our hand, for we stated it long before and endeavored to dissuade from the course that led to it.

Having finished this particular review of each separate school, we invite your attention to other subjects relating to the schools generally. We have called your attention to no subject whose bearing upon the interests of the town is more important than that of dividing it into districts. This it is well known has never been done, and though nominally existing as *three*, yet the business has been transacted as one district. By the new School Laws it remains as we have stated under the discretion of school committees, subject to the decision of the towns themselves. Probably no town in the State, unless it be Warren, is so unfavorably situated with reference to the New Law, as this. Nearly three-fourths of all the children in the town are located in the Centre District, as it is called. If the town were to be divided into districts, our geographical position would seem to indicate that the lines which have been the nominal should be those (nearly) which should be selected as the real limits. On the supposition that these lines were observed, then *nearly three-fourths of the children would receive but a small fraction more than one third of the funds derived from the State, while the North School from the same source would receive more than is their proportion, both from the State and town funds united.* The only way to equalize this disproportion will be to divide the centre of the town into several districts, without any regard to the present system of gradation in the schools. There is indeed a way provided by shuffling with the law whereby a nominal division may at last be converted into a real union of districts, but it compels to much labor without any compensation. It will all be exerted simply to gain the privilege of standing where we do now. It would seem that we had sufficient employment without having any unnecessary labor imposed upon us.

The case will not be at all improved, but made much worse, should the petition of a part of the North district to be annexed to Warren prevail. Such a measure would prove nearly ruinous to that school, already quite too small in numbers. Besides greatly reducing the number of scholars, it would leave the school-house in a remote corner of the district, and render its removal a necessary consequence. This would certainly be but a poor return for the expense so lately incurred in the purchase of the land and erection of the school-house there.

These considerations persuade us that it is far better for the town to let the whole subject of division into districts remain where it now is.

Another topic, which has for a long time engaged the attention of some individuals, has come to be of great importance both to the town and the committee. It is respecting the employment of a superintendent, who shall take the general charge of all the schools, and attend to the transacting of the business relating to them, *under the direction of the committee.* It cannot be concealed from any one, that to continue the present system in successful operation, requires no small expense of time and labor. In addition to frequent sessions of the committee there is an almost constant call for effort. If the amount of time spent in examining teachers and attending upon the examinations of eight or nine schools four times in a year, besides the visits required by law to be paid at other times, attending to cases of exclusion and discipline, purchasing books and stationery, and making the almost constant repairs which are necessary—if these and other incidentals be taken into consideration, the statement will not appear at all extravagant. Few men are so much at leisure that they can afford to attend upon these numerous calls. To do it they must sacrifice other and prior claims. And this is a reason why the most valuable counsels and labors are withdrawn from the service of the public almost as soon as the members elected have become acquainted with the different branches of the duties of the committee; they end when they ought to be regarded as only begun. Their reward for these services is not always the most amiable or just remuneration. Besides a complete and equal division of their labors is not possible, and acting separately they may act diversely. These things can all be perfectly adjusted only by the office of which we speak.

There is another aspect in which this ought to be regarded. Parents are, if the committee to whom they first apply happens to be absent, com-

pelled to travel from place to place, and subjected to no small trouble in procuring admittance for their children. Let all these matters be conferred on an individual and he will have it in his power greatly to reduce these inconveniences.

For some time the attention of the committee has been directed to the text books which have been in use among us. Nowhere is there more need of a complete system, and we must add, in no feature of our schools has there been so great a deficiency. In reading, we had Mr. Angell's books, named on the title page a series; but this term could apply with little propriety to none except the first and the last number of his books. They are a series of stories, and not much more. There is little taste and less variety of style. Good readers must be made by natural instinct rather than the training which such books would give.

It seemed a duty already too long delayed, thoroughly to revise the whole of the books and introduce the best which the improvements of the age furnish. This was an undertaking of no small magnitude. The difficulty was not that there was a scarcity so much as that there was a superabundance of books in the market, and which were eagerly commended to our attention. After as critical an examination as we had it in our power to give, we fixed upon nearly the same selection that since that period has received the recommendation of the convention of committees and teachers held in Providence. That we have imposed a limit on changes for any great length of time we do not suppose, nor is it desirable unless we wish to take a stand against all farther improvement. Still we think it will be some time before another such revision will be necessary.

We were obliged in procuring this change to make some sacrifice on the old books some of which might have served awhile longer. After a brisk negotiation with several booksellers and publishers, we succeeded in exchanging the old books which were in a tolerable state of repair, for a fair allowance, and at the same time obtained the new at much lower than the trade prices.

The assessments have generally been paid with a commendable punctuality, and no difficulty need hereafter be apprehended from this source. There are yet several arrearages for fuel and books for the Middle District, incurred in years previous, which would have been settled long since had the law of the town been regarded and the assessments paid. After repeated and urgent solicitations, neglected or refused, the committee directed that the names of the delinquents, with their dues, who were able to pay should be passed into the hands of the collector of the town taxes. There seems to be some question respecting his authority in this business which it may be well for the town to settle.

From what we have already said the town will anticipate no flattering account of our finances. Causes unforeseen and unprovided for have arisen which have made large demands, and which we could not feel warranted to deny. Besides it ought to be considered that much more instruction is given than has been the case at any former period. The number of schools has been multiplied, and in two of them the terms greatly lengthened. Nor have we had it in our power to tell on what amount of money we might depend. The income from two sources is variable and has fallen far below the computation on which our estimate was based for two successive years, thus crippling us twice. And though the town voted, two years since, the introduction of Mitchell's Outline Maps, which have at a large expense been placed in the schools, the means have not yet been given, that we are aware, into our hands. If all these items are taken into the account it will be seen that we have husbanded our resources quite as well as when we were permitted to represent an overflowing treasury. We thought it needless last spring to call for a sum larger than would probably be required to conduct the operations, and notwithstanding the first glance appears formidable, the difference between our request of the last and the present year is not great. We only ask for \$200 more than was placed at our disposal last year.

Our accounts so far as we have the data for making them stand thus :

Income from the State,	\$818 57
Appropriation from the Town,	400 00
Balance due last year,	400 00
Avails of School Fund,	400 00
" Registry tax,	50 68
	<hr/>
	\$2069 25

The expenditures have been as follows :

Salary of D. S. Gushee,	\$600 00
" M. E. Vaughn,	135 00
" H. Hunt,	125 00
" E. G. Wyatt,	200 00
" M. W. Shepard,	60 00
" M. N. Davis,	75 00
" S. H. Easterbrooks,	75 00
" A. H. Batt,	65 00
" E. G. Coit,	65 00
" E. T. Howe,	130 00
" N. B. Tanner,	300 00
" M. Bowler,	40 00
" M. M. Luther,	66 00
" L. C. Rice,	75 00
	<hr/>
	\$2011 00

Repairs on school-houses,	82 58
Stoves, furniture, etc.	39 99
Outlay on North and South Primary Schools, exclusive of	
Stoves,	107 58
Arrearages of Middle District,	15 00
Incidentals,	19 92
Rent of North and South Primary Schools,	50 00
	<hr/>

Whole amount,	\$2326 07
Leaving a deficit in our Treasury of	\$257 32

In order to cancel this and carry on the operation of the Schools as they now are, will require at least one thousand dollars from the town, and this with a careful economy will close the ensuing year without embarrassment.

THOMAS SHEPARD, *Chairman,*

JAMES N. SYKES, *Secretary.*

Report for 1848.

THE committee for superintending the public schools in the town of Bristol, in submitting their annual report, are happy to say that their proceedings during the past year have been distinguished for mutual good feeling and perfect harmony of action.

The several schools under their care have enjoyed a year of uncommon prosperity. Every teacher employed, has met with satisfactory success. Appeals of dissatisfaction on the part of parents against the rules, or the discipline of teachers, which, in some former years have been the occasion of no little trouble to all concerned, have been few the past year. Experience furnishes increasing testimony, that good and wholesome rules, judiciously and kindly administered, will, in the end, commend themselves to every reflecting parent.

The school in the North District, under the care of Miss M. W. Reed, continued 22 weeks during the warm season, and was sustained in a manner satisfactory to the committee and the district. The highest number in attendance during the first term, 43; average attendance, 34; second term, highest number, 38; average number, 32. The winter school in this district was taught by Mr. S. L. Cotton, and has been well managed. It has continued four months. Highest number in attendance, 46; average number, 37.

The committee from this district report that the school regulations

adopted by the general committee for the town, have formed the basis of the government of this school. Seventy-three children between the ages of four and sixteen, are reported from thirty-three families in this district. The present house is found insufficient to seat those who wish to attend, especially in winter. Your committee would recommend its enlargement during the present season.

The school in the middle district has continued through the year, under the care of Mr. J. C. Rich. Its management has been highly satisfactory to the committee, and we are happy to say, has secured the confidence and harmony of the district. The general school regulations of the town have formed the basis of government in this school. Highest number of scholars in attendance during the summer, 64; average number, 56. During the winter the numbers have been much the same, but the ages of the scholars different. The number of children reported from this district between the ages of four and sixteen, is 141, from fifty-six families. The present house is inadequate to the wants of the district, and needs enlarging. The numbers in this school authorize a system of classification into two departments, to be carried on in separate rooms, and under the instruction of separate teachers. And the committee would earnestly recommend that the house be enlarged, with a view to accommodate such an arrangement.

Of the several schools in the first district, we would say in general, that they are the same in number, and are conducted upon the same regulations as last year. Miss M. M. Luther, has taken the place of Miss Vaughn, in the select department, and Miss P. R. Bradford, that of Miss E. G. Wyatt, in the intermediate department. The numbers in attendance on both departments in the brick school, have rendered it necessary to employ an additional assistant in each school. The three primary schools number 140; average attendance, 126. The North and the South Primary School suffer from being in rooms too contracted. Instead of 68 in both, we could teach 90 or 100 at the same expense, if we had room. Suitable buildings in these locations are imperiously called for immediately, for the better accommodations of these schools. The intermediate department under the care of Miss P. R. Bradford, and two assistants, with 107 pupils, sustains a high reputation. The committee have been obliged to send up a class of 20 to the select department prematurely, because the number was becoming too great for the room and the strength of the teachers.

The select department under the care of Mr. D. S. Gushee, with one female assistant, numbers 167; average attendance through the year, 114. This department has been well sustained. The committee feel that the burden of so many pupils, in such advance standing, is greater than ought to rest upon the energies of two teachers. Another assistant is demanded in this school, and yet the building furnishes no separate recitation room for a third teacher. There is an increasing surplus from this department, as well as from the intermediate school, which calls for another building.

Your committee see not how these schools can go forward successfully, admitting such applicants as are qualified, for another season, without an additional building. Every school in the district is overflowing. More teachers are called for every quarter, and yet we have no place to put them. Our public schools have secured the confidence of a large portion of the community. They are daily growing in reputation, and if the necessary means are provided, they will ere long be looked to by all classes, as the place for commencing and finishing the education of their children. The question then occurs with great force, shall this growing confidence be arrested for want of accommodations? Shall your committee post themselves at the doors of your school-houses on the first day of each quarter, and say to the applicants, we are full and can receive no more, you must seek for an education where you can find it?

The committee can see but one alternative, and that is to erect a building with all consistent dispatch, on or near the Common, a part of which shall be occupied with the surplus scholars from the intermediate and select departments.

By a census just completed, the number of children in the first district,

between four and sixteen, is 796. Four hundred and ten of these are now connected with the several departments in our public schools, leaving 386 either connected with private schools, or with no schools at all. Most of these would, in all probability, like to become connected with our public schools, whenever their organization is such as will ensure their reception and their best improvement. With accommodations for a little more than one-half of our children at the proper age to attend school, shall we stop where we are, and go no further? We will not indulge in such a presumption, though we thus speak.

The system which we have so successfully begun, cannot be completed without the addition of a fourth department, which may be called the classical school. By this, we mean a department that shall take such pupils as shall have completed the course prescribed in our select school, and carry them on into the higher branches of mathematics, such as Algebra, Surveying, Navigation, Natural Philosophy, Geometry, together with Rhetoric, Moral Philosophy, and the Ancient and Modern Languages, sufficient to enter any New England colleges. Such a school might be commenced with one teacher, and would occupy one story of the new building which we propose as above. Such an high school, accessible to both sexes, and to all from any portion of the town who may be qualified to enter, would be an ornament to our village. It would be a rich legacy to future generations. Has not the time arrived for carrying out this crowning act of our school system, so nobly prosecuted thus far? Is not this a favorable time to set seriously about the accomplishment of the work? It is not the province of your committee to execute. We can only present the object as demanded, as we think, by the exigencies of the town, and the spirit of the age in which we live. With the freemen of the town, assembled at their annual meeting, we leave the subject, entreating every parent to remember that the richest and best legacy he can bequeath his children is a good intellectual and moral education.

The expenditures of the year have been as follows:

Salary of D. S. Gushee,		\$600 00
" M. M. Luther,		150 00
" E. G. Wyatt,	\$62 50	
" P. R. Bradford,	206 25—	268 75
" M. W. Shepard,	80 00	
" E. G. Coit,	60 00—	140 00
" E. T. Howe,	150 00	
" M. D. Wyatt,	72 00—	222 00
" E. M. Wardwell,		130
" E. G. Coit,	65 00	
" M. A. Wardwell,	65 00—	130 00
" J. C. Rich,		350 00
" M. W. Reed,		72 60
" S. L. Cotton,		120 00
		<hr/>
		\$2193 35
Repairs and incidental expenses,		58 94
" " last years' arrearages,		19 16
Arrearage rents,		51 00
Rents for the past year		49 00
		<hr/>
		\$2361 45

The receipts of the year are as follows:

Income from the State fund,	\$818 57
Appropriation from the town,	1150 00
Received from other sources through town treasurer,	345 67
" " C. Easterbrooks, arrears of last year,	39 30—
	<hr/>
	\$2353 54

Excess of expenditures, \$7 91

In estimating the necessary expenses of the coming year, the committee have to take into consideration the probable increase of scholars, the consequent increase of teachers, and the more adequate compensation of some

now in their employment. Anticipating that each department is to go on as it now is, only with the usual increase of numbers, without the addition of a single school-room to the narrow accommodation in which we are now crowded, we see not how another years' instruction can be given worthy of the confidence of the public, without an advance of at least \$250, upon what was raised by the town last year. We would then, after a careful examination of the subject, beg leave to recommend that the sum of \$1400, be raised by the town for the support of the public schools the year ensuing. We wish it to be understood that this sum is distinct from any moneys which the town may raise for the building and enlarging school-houses, so urgently recommended in this report. We again refer to such additional accommodations as we have suggested above, as, in our view, indispensable to the success and completion of the system we have begun. All which, we respectfully submit to the deliberate action of our fellow-citizens at their approaching annual meeting, not permitting ourselves to doubt that in taking action upon questions so vitally connected with the well-being of society, they will duly consider the growing interest in the cause of public schools on every side of us, its inseparable connection with the prosperity of our republic, and the intellectual and moral welfare of the present and all future generations of our youth.

In behalf of the committee,

THOMAS SHEPARD, *Chairman.*

MARTIN BENNETT, *Secretary*

WARREN.

HISTORY OF PUBLIC SCHOOLS.

No public education at the expense of the town, was ever provided for, previous to 1828. There had previously been very good private schools, including a Classical Academy, by which a large portion of the community had their educational wants provided for; but this system was nevertheless partial in its application, and expensive in its conditions.

In 1828, the town began to make regular appropriations of money, for public education, which have been annually made, up to the present time, according to following scale of appropriations.

In 1828,	\$325	In 1839,	\$360
" 1829,	325	" 1840,	360
" 1830,	325	" 1841,	350
" 1831,	350	" 1842,	350
" 1832,	320	" 1843,	
" 1833,	320	" 1844,	650
" 1834,	320	" 1845,	650
" 1835,	320	" 1846,	650
" 1836,	320	" 1847,	750
" 1837,	320	" 1848,	1000
" 1838,	360		

Connected with this movement of the town in behalf of public education, there was a fund established in the following year, for the gratuitous instruction of the children of parents who are unable to pay for their tuition, but this fund was placed under the control of a board of trustees appointed for that purpose, and in no way subject to the legislation of the town. This fund was left by Mr. Nicholas Campbell, who died July 21, 1829, leaving for the above named purpose 95 shares of stock in the Warren Bank, which at 50 dollars (the per value) amounts to \$4750. The present trustees of this fund, are Seth Peck, J. T. Child, and G. W. Carr.

The money provided for the public schools, and all necessary arrangements for accommodation and instruction, were properly applied by a school committee, appointed by the town. The first school committee, appointed

by the town, was organized, April 30, 1828, by appointing Daniel Bosworth Chairman, and Levi Haile, Secretary.

No school houses, however, were erected or provided, at the expense of the town, till a late period. The first arrangement of this kind, was made in 1842. Previous to this time, both in the village, and in the agricultural parts of the township, the schools were kept in buildings hired by the town. In the east and north districts, the school houses were owned by certain of the inhabitants who had erected these houses for their own accommodation as private schools; and who consented to rent them to the town, after provisions had been made for public instruction. In the west district (which includes the village) the buildings used for the public schools were in no case built, or owned, by the town, till in 1842.

In that year, the town purchased the lower half, or first story of the building known as the Masonic Hall, which had been erected by the joint agency of the Masonic Fraternity and an academic corporation. The surviving members of this corporation sold their shares in the stock of this building, owned by them, which at the reduced price of five dollars per share, for 84 shares, placed a valuable school house in the possession of the town, for \$420. This arrangement was consummated in September of that year.

At the annual town meeting, held April 10, 1844, the town voted to appropriate \$600 for the erection of two suitable school houses, in the north, and the east districts. In the following year, Nov. 9, \$75 more, were appropriated to finish these buildings, and the fences and outbuildings.

The next movement of the town, in behalf of Public Schools, was the important transaction, on April 7, 1847, when it was voted, that a sum not exceeding \$10,000 be appropriated for the erection of a building suitable for the purposes of public instruction, in the west district.

Immediate measures were taken to carry this act into effect, an eligible lot was obtained, and an elegant and commodious brick building, two stories high, was built in the same and in the following year. The whole of the money granted by the town, for this purpose, was not used; the entire sum for the purchase of the ground, erection and furnishing of the building, with the improvements on the grounds &c. not exceeding \$8500. The building was dedicated to its appropriate objects, by suitable public exercises in the building, on the 11th of September, 1848. It is presumed not to be necessary to give any detailed account of this interesting occasion, more than simply to state the order of exercises. These were, 1. Reading select portions of scripture, by the chairman of the school committee, Rev. J. P. Tustin. 2. Prayer, by Rev. R. M. Hatfield. 3. Reading of the report of the building committee, by the chairman, E. W. Burr, Esq., concluding with the transfer of the building to the school committee. 4. Statement in behalf of the school committee, by the chairman, concluding with transferring the keys of the building, to Mr. Isaac F. Cady, the principal elect of the school. 5. Address by Mr. Cady. 6. Address by Hon. Levi Haile. 7. Address by Mr. Barnard, Commissioner of Public Schools. 8. Address by Mr. A. M. Gammell.

The school being organized, the business of instruction commenced on the following day, Sept. 12, 1848.

This school is now sustained at an expense of about 1350 dollars per annum. The salaries for teachers are, \$650 for the principal, \$250 for first assistant, and \$200 each, for two other assistants.

The North and East districts are supplied with good schools, conducted, in both cases, by female teachers in the summer, and by male teachers in the winter. Each of these sessions is four months, making eight months tuition in the year for each, the expense in each case for the year bring about \$190. The average number of scholars, in each of these schools is about 42 or 43. The present number of scholars in the west district is about 230. The whole amount of money spent during the current year, for education, in this town, is about \$1730. The present number of scholars in the public schools, is about 315, or about \$5 5-100 per scholar.

Yours very respectfully,

J. P. TUSTIN.

SCHOOL ARCHITECTURE.

Under this head will be given a variety of plans of school-houses for schools of different grades, which have been erected, not only in Rhode Island, but in other parts of New England, on the general principles set forth in the Document on School Houses, appended to the First Annual Report of the Commissioner of Public Schools, and published in the FIRST VOLUME OF THE JOURNAL OF THE RHODE ISLAND INSTITUTE OF INSTRUCTION. These plans, and the pages devoted to APPARATUS, and LIBRARY, and other matters connected with school houses, published in this and the second volume of the Journal, comprise the contents of the volume printed by the Commissioner, with the title of "SCHOOL ARCHITECTURE."

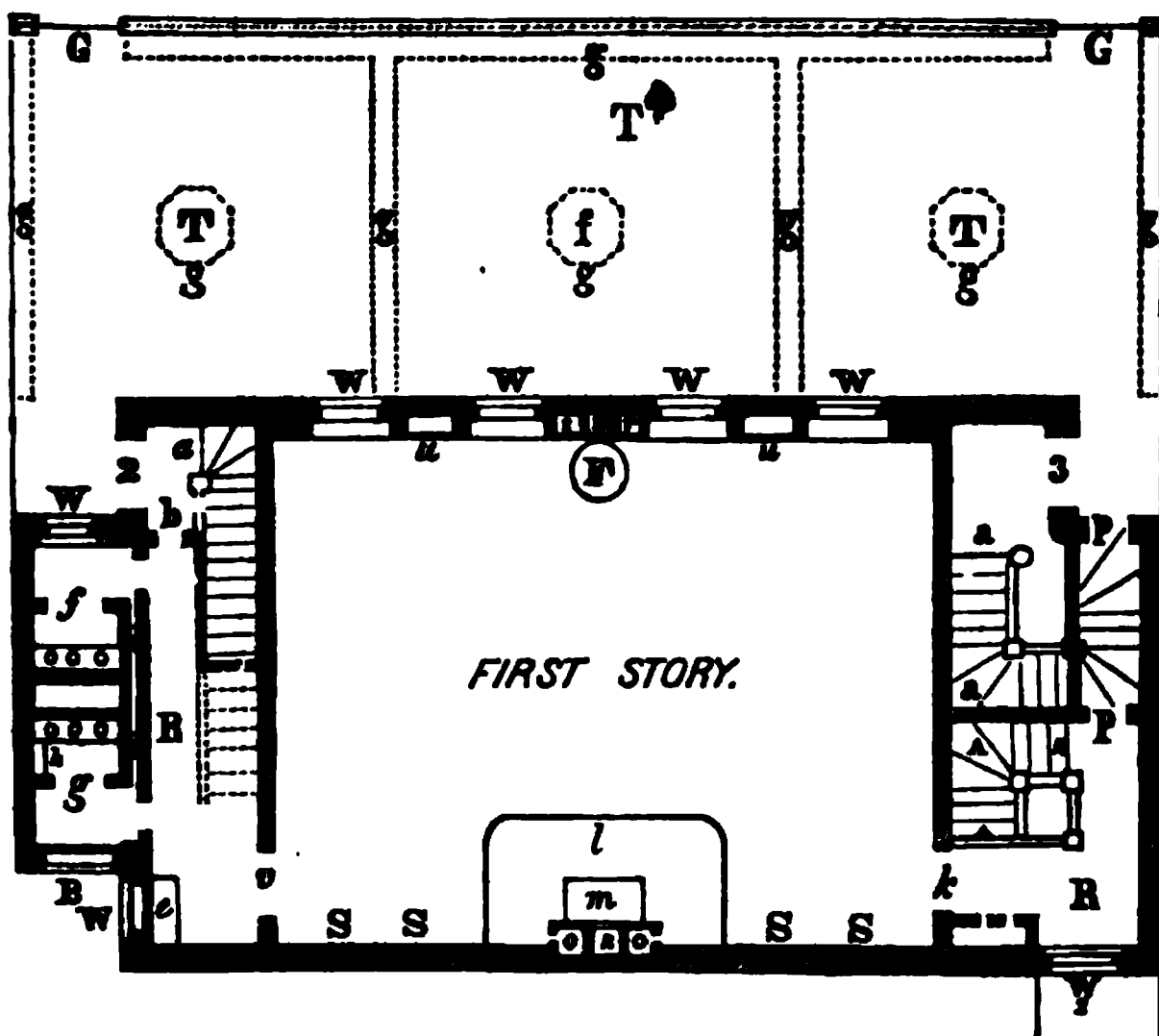
INGRAHAM PRIMARY SCHOOL-HOUSE, BOSTON.

The Schoolhouse, to which the following description and plans more particularly refer, is situated in Sheafe street, at the north part of the City, and on the slope of Copp's Hill, famed in our Revolutionary history. It occupies a space of twenty-six by fifty-three feet, exclusive of the play-ground in front, between it and the street, which is sixteen by fifty-three feet. This front is hardly long enough. Sixty feet would have been much better. The main building is twenty-six by forty-four feet; and there are projections at each end,—one on the west, four and a half by sixteen and a half feet, containing the privies, and one at the east end, three and a half by twenty-one and a half feet, in which is the passage from the lower schoolroom to the play-ground.

The building is three stories in height. Each story contains a Schoolroom, Recitation-rooms, Closets, Entries, and Privies, and is finished twelve feet high, in the clear. Each Schoolroom is lighted by four windows, which are all on one side. The first floor is set eighteen inches above the ground at the front of the building. The Cellar is finished seven and a half feet high, in the clear; and its floor is on a level with the surface of the ground at the back of the building, where is the entrance-door to the first story.

The Schoolrooms in the first and second stories are thirty feet in length, by twenty-two feet and four inches in width, and contain six hundred and seventy square feet of floor. That in the third story is thirty-two feet in length, by twenty-two feet and nine inches in breadth, and contains seven hundred and thirty square feet of floor. Thus allowing from ten to twelve or thirteen square feet of floor, and one hundred and fifty cubic feet of air, to each scholar.

The following diagram will show the arrangement of the ground-floor, with the Play-ground in front.



Scale 16 feet to the inch.

The following references will apply to the ground-plan of each of the three stories.

1, Entrance to First Story, by a door under the window W, the back part of the building being eight feet lower than the front.

2, 3, Entrance-doors to the Second and Third Stories.

A, A, A, Stairs to First Story, from the Entrance-door 1.

B, Blinds in Boys' Privies.

F, Fireplace or Furnace-flue, or Stove, when one is used instead of a Furnace.

G, G, Entrance-gates to Second and Third Stories. The Iron Fence extends the whole length of the front on the street, broken only by these two gates.

R, R, Recitation-rooms, or spaces used for that purpose. In the *first story*, that on the right being the entrance-passage to the schoolroom, and that on the left, the passage to the Second Story.

S, S, S, S, Large Slates, measuring four by two and a half feet, affixed to the walls, instead of Blackboards.

T, T, T, Trees in Play-ground. That near the fence, is an old horse-chestnut tree.

U, Umbrella stands. The place of those of the *second story* only are shown. In the other stories, they are also in the entrance-passages.

W, W, Windows.

a, Stairs to Second Story.

b, b, b, In *second story*, Entry, and place for Boys' Clothes-hooks, also used as a Recitation-room. In *third story*, place for Clothes-hooks.

c, In *second story*, Door into the Recitation-room where are the Sink and Girls' Clothes-hooks. In *third story*, Door into Recitation-room where is the Brush Closet and entrance to Girls' Privy.

d, d, d, In *second story*, Girls' Clothes-hooks.

e, Sinks.

f, Privy for Girls.

g, Privy for Boys.

h, Trough in ditto.

i, i, Space between the walls of the Privies and main building, for more perfect ventilation, and cutting off of any unpleasant odor. [This space is here too much contracted, on account of the want of room. It would be much better, if greatly increased.]

k, Entrance-door to Schoolroom, through which, only, scholars are allowed to enter. In *third story*, the passage from the stairs to the Entrance-door is through the Recitation-room.

l, Teachers' Platforms, six feet wide and twelve feet long, raised seven inches from the floors.

m, Teachers' Tables.

n, Ventiduct. That for each room is in the centre of that room. These are better shown in the diagram representing the Ventilating arrangement, (p. 183.)

o, o, Closets, in the vacant spaces on the sides of the Ventiducts, in the First and Second Stories. In *first story*, they are on each side of the Ventiduct; in *second story* only on one side. In the *third story*, there are of course none. See the diagram of the Ventilating arrangement, (p. 183.)

p, p, Ventiducts for other rooms. In plan of *second story*, p shows the position of the Ventiduct for first story. In *third story* plan, p p show the positions of those for both the lower stories.

q, q, q, Childrens' chairs, arranged in the *second story*. Their form is represented in another diagram, (p. 181.)

r, s, t, Hot-air Flues from the Furnace, Cold-air Flues if Stoves are used, and Smoke Flues. These will be better understood by a reference to the diagram explanatory of the Chimney Pier, (p. 182.)

u, u, Cabinets for Minerals, Shells, and other objects of Natural History or Curiosity.

v, Door of Recitation-room. In *first story*, this door leads to the entry in which are the Sink, Brush-Closet, entrance to the Privies, and passage to Second Story. In *second story*, it leads to the Recitation-room where is the Teacher's Press-closet; and in the *third story*, to that in which are the Sink, entrance to the Privies, and Stairs to the Attic.

w, Teacher's Press-closet, fitted with shelves and brass clothes-hooks.

x, Closet for Brooms, Brushes, Coalhods, &c. That for the *first story* is under the Second-Story stairs.

a, a, a, Stairs to the Third Story.

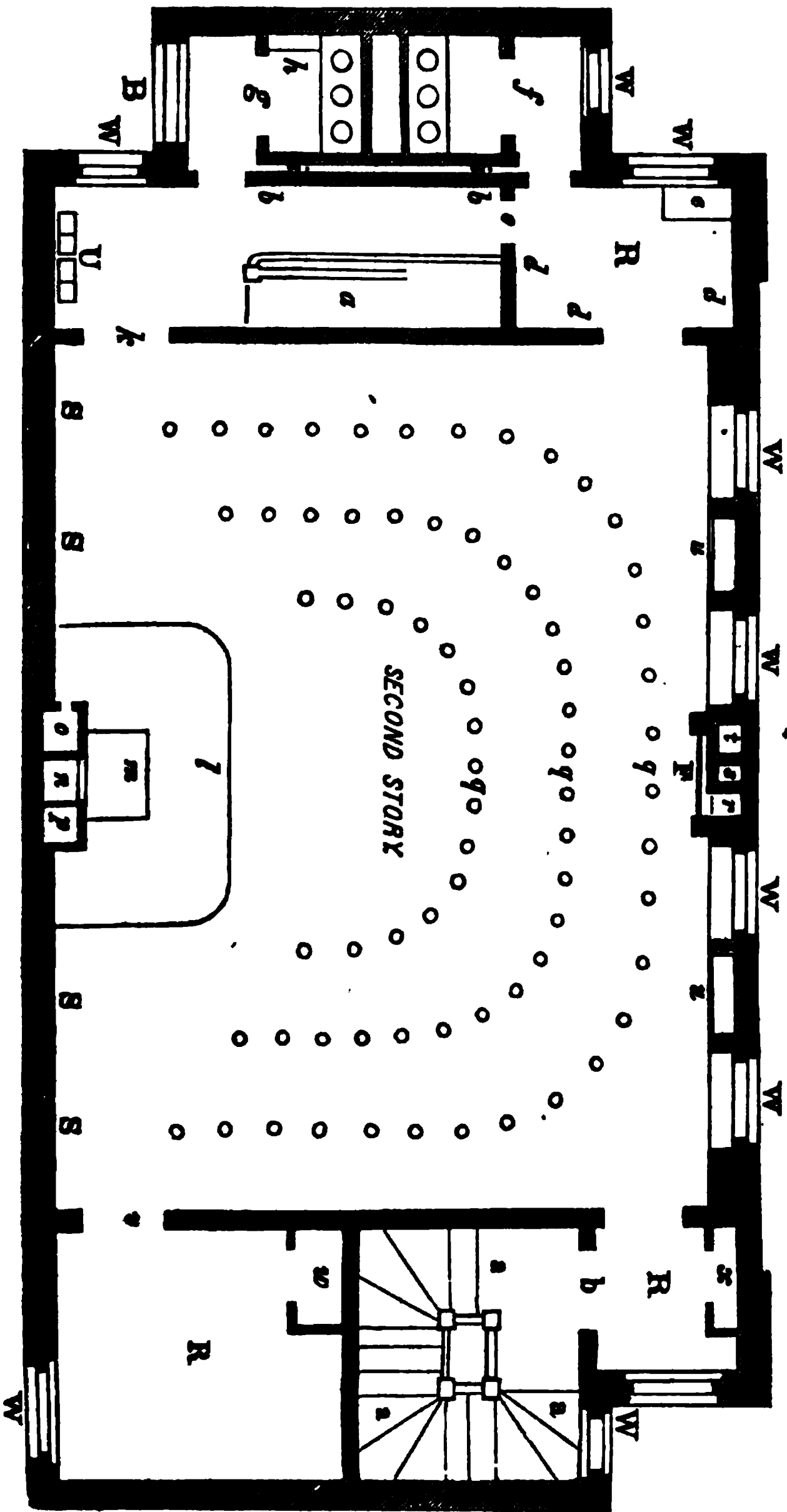
b, b, Doors connecting First and Second, and Second and Third Stories.

f, Place for Fountain, in the centre of the Play-ground.

g, g, g, Grass-plats, or Flower-beds.

p, Passage from the First-Story Schoolroom to the Play-ground.

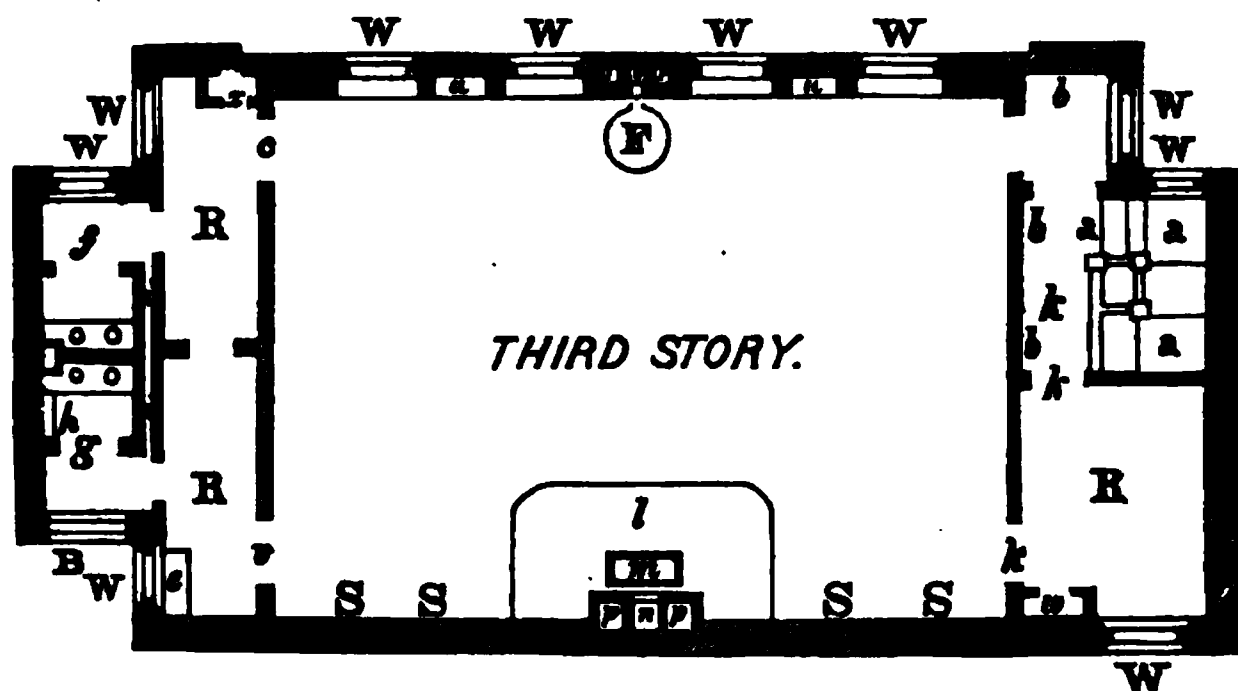
The Plan of the *second story*, on the next page, is drawn on a larger scale, for greater convenience in showing all the arrangements. The references on this diagram are more copious and minute than on either of the others.



Scale 8 feet to the inch.

The building fronts nearly N. N. E., and of course all the light comes into the Schoolrooms from the North. At the same time, in order to secure the benefit of the winds that prevail in Summer, and the admission of "a streak of sunshine," which adds so much to the cheerfulness of any room, and particularly of a schoolroom, there are windows in the back or southerly wall, opening into the recitation-rooms or entries, through which, and the entrance-doors, the sunlight finds its way into each schoolroom. The Neapolitan proverb, "Where the sun does not come, the physician must," has not been lost sight of; though it must be confessed that we have not been able to pay so much attention to it as would be desirable.

The next diagram, which is on the same scale with the first, will show the arrangement of the *third story*, which differs from the first and second in having a larger schoolroom, and more space for recitation-rooms; less space being occupied for stairways than in the other stories. The partitions at the ends are set one foot each way nearer to the ends of the building, making the Schoolroom thirty-two feet in length, while the others are only thirty.



Scale 16 feet to the inch.

It will be seen, that the ends of the building are cut off from the school-rooms, by entries, stairways, recitation-rooms, &c., and the back and end walls are left blank, for convenience in displaying Maps, Charts, Pictures, &c., and for the large Slates, used instead of Blackboards. As ample provision, as was practicable, has been made for recitation-rooms, closets, and other necessary conveniences.

It will be seen, from the Plans of the different Stories, that the Entrance-door (*k*) to each Schoolroom is in that part of the partition nearest to the back walls; so that, on entering the room, the Teacher's Platform is directly before the scholar or visitor. This Platform is six feet wide and twelve feet long, and is raised seven inches above the floor, that being a sufficient height to give the Teacher a full view of the whole school. In the transverse-sectional elevation, (p. 184,) the raised Platform is shown at P.

On this Platform, is a Table, (*m*), instead of a Desk, that being the more convenient article for the Teacher's use. On it, are constantly kept, in full view of the scholars, THE LAWS OF THE SCHOOL,—the *Holy Bible*, the Rule and Guide of Life, the Moral and Religious Law; the *Dictionary*, the Law of Language, the Authority for Orthography and Orthoepey; and the *Rules and Regulations of the Committee*. These should be always on every Teacher's table or desk, and should be frequently appealed to. On this Table, also, are the Record Book of the School, Ink-standish, Table Bell, and other necessary articles.

In front of the Teacher's Platform, and facing it, arranged in a semi-circular form, as shown at *q q q*, in the Plan of the Second Story, are the Seats for the scholars. These are comfortable and convenient Arm-chairs, of which the annexed diagram shows the form. Each has a rack at the side (*A*) for convenience in holding the books or slates of the scholars. These chairs were the contrivance of Mr. Ingraham, and were introduced by him into the Primary Schools, in 1842, since which time, the Primary School Board have recommended their introduction into all their schools, in preference to any other seats, and about one hundred and thirty of the one hundred and sixty schools are now supplied with them. They are not fastened to the floor, but can be moved whenever necessary; and this is found to be a great convenience, and productive of no disadvantage. They have been strongly recommended by the Committees on School and Philosophical Apparatus, at the Exhibitions of the Massachusetts Charitable Mechanics' Association, in 1844 and 1847, and premiums were awarded for them in both those years.



The following diagram is an elevation of the Front wall of the Schoolroom, as seen from the Teacher's Platform. It is on the same scale with the preceding Plan of the Second Story,—eight feet to the inch.

Each Schoolroom is lighted by four windows; and in the central pier, between the windows, are the Cold-air and Chimney Flues, or the Furnace Flues. The Fire-place, or Furnace Flue, is represented at *F*, as in the preceding Plans of the different Stories. The arrangement of the Flues, in this pier, will be seen in the next diagram.

On the mantel-piece, over the Furnace Flue, is, in one room, a Vase of Native Grasses, or Flowers, and in the others, ornamental Statues, or Statuettes, furnished by the Teachers. Above this, suspended on the pier, is the Clock.

Between the other windows, are Cabinets, for the reception of Minerals, Shells, and other objects of Natural History or Curiosity. Their location is seen at *u u*, in the Plans of the respective Stories. There are two of these Cabinets in each Schoolroom, between the windows, above the skirting, and as high as the windows, with double sash-doors, of cherry-wood, hung with brass hinges, fastened with thumb-slides and locks, and fitted with rosewood knobs. There are twelve shelves in each, six of them being inclined, with narrow ledges on each, to prevent the specimens from rolling off. Immediately below them are small Closets, with four shelves in each, and double doors, hung and fastened in the same manner as the sash doors.

The Blinds of the Second Story, represented in this diagram, are framed, two parts to each window, and are hung with weights and pulleys, in the same manner as the window sashes. They run up above the tops of the windows, and behind the skirting of the next story above, in close boxes, and

have rings on the bottom rails, to draw them down. In this elevation, they are shown in different positions. The windows in the First Story are fitted with Venetian Blinds, and those in the Third Story with Inside Shutter-Blinds.

All the window-stools are wide, and contain Vases of Native Grasses, or Flowers.

Particular attention has been given to the mode of Heating and Ventilating these buildings; and provision has been made for a copious and constant supply of fresh air, from out-of-doors, which is so introduced, that it is sufficiently warmed before it enters the Schoolrooms.

The Sheafe-street building is heated by one of Chilson's largest-sized Furnaces; though it was originally constructed with a view to using Dr. Clark's excellent Ventilating Stoves, as in the other two buildings.*

The accompanying diagram shows the arrangement of the Cold-air and Smoke Flues, as arranged for the Stoves. It will be well to examine it in connection with the transverse-sectional elevation, (p. 184,) and the Floor Plans of the different Stories, (pp. 177, 179, 180.)

1, 2, 3, Floorings of the First, Second, and Third Stories. 4, Roof.

CA, Cold-air Flue for First Story, which delivers the air from without, under the Stove, as shown at C A, in the transverse-section, (p. 184,) and at F, in the floor-plans.

r, r, Cold-air Flue for Second Story, which empties into the box under the Stove, at CA, in the Second Story of the transverse-sectional elevation. It corresponds to r, in the Floor Plans of the first and second stories.

t, t, Cold-air Flue for Third Story, which empties into the box CA, under the Stove of that Story, as seen in the transverse-sectional elevation, and at F, in the Floor Plan. It corresponds to t, in the Floor Plans.

These Cold-air Ducts are twelve by eighteen inches, *inside*, and are *smoothly* plastered, throughout. This is hardly large enough, however.

s, s, Smoke Flues. That of First Story corresponds to s, in the floor plan of first story, and to r, in those of the second and third. That of Second Story corresponds to s, in second-story Plan, and to t, in third-story Plan. That of Third Story corresponds to s, on the Plan of that Story.

These Smoke Flues are eight inches square, *inside*, and are *smoothly* plastered, throughout. That of each Story commences in the centre of the pier in the room to which it belongs.

[The pier in which these Cold-air Ducts and Smoke Flues are placed, is wider than the piers between the other windows, in order to allow sufficient width to the Ducts. It must be at least six feet.]

It will be seen, from the transverse-sectional elevation, (p. 184,) (the Smoke Flue in which is represented as continuous, it not being practicable to show the bends,) as well as from the Plans of each Story, that the arrangements for Ventilation are directly opposite the Chimney Flues. The Ventiducts are contained in the projecting pier back of the Teachers' Platforms and Tables shown at t, *see*, in the Floor Plans.

Scale 10 feet to the inch.

It has already been stated, that particular attention has been paid to the

* Descriptions and Plans of this Furnace and Stove will be found on page 185

mode of Ventilation; and it is believed that the system, if not perfect, is better adapted to its purpose than any other. The Ventiduct for each room is of sufficient size for the room; and the three are arranged as shown in the next diagram. It will be seen, that the Ventiduct for each room is in the centre of the pier, thus avoiding any unsymmetrical or one-sided (and of course unsightly) appearance.

1, 2, 3, 4, Floorings of the First, Second, and Third Stories, and Attic. 6, Roof.

c, c, c, Ventiduct of First Story, commencing in the centre of the pier. Between the ceiling of this room and the floor of the Second Story, this flue is turned to the left, and then continues in a straight line to the Attic, where it contracts and empties into the Ventilator V, on the Roof.

d, d, d, Ventiduct of Second Story, also commencing in the centre of the pier, and turning to the right, between the ceiling of the Second and floor of the Third Story, whence it is continued to the Attic, and empties into the Ventilator V.

e, e, Ventiduct of Third Story, also emptying into V.

These Ventiducts are made of thoroughly seasoned pine boards, smooth on the inside, and put together with two-inch screws. Each, as will be seen, is placed in the centre of the room to which it belongs. They are kept entirely separate from each other, through their whole length, from their bases to the point where they are discharged into the Ventilators on the Roof. Each is sixteen inches square inside, through its whole length to the Attic, where, as will be seen by the diagram, each is made narrower as it approaches its termination, till it is only eight inches in width, on the front, the three together measuring twenty-five inches, the diameter of the base of the Ventilator on the roof. As they are contracted, however, in this direction, they are gradually enlarged from back to front, so that each is increased from sixteen to twenty-four inches, the three together then forming a square of twenty-five inches, and fitting the base of the Ventilator into which they are discharged. The increase in this direction will be better seen in the Elevation on p. 184, where V V represents one Ventiduct, continued from the lower floor to the Ventilator.

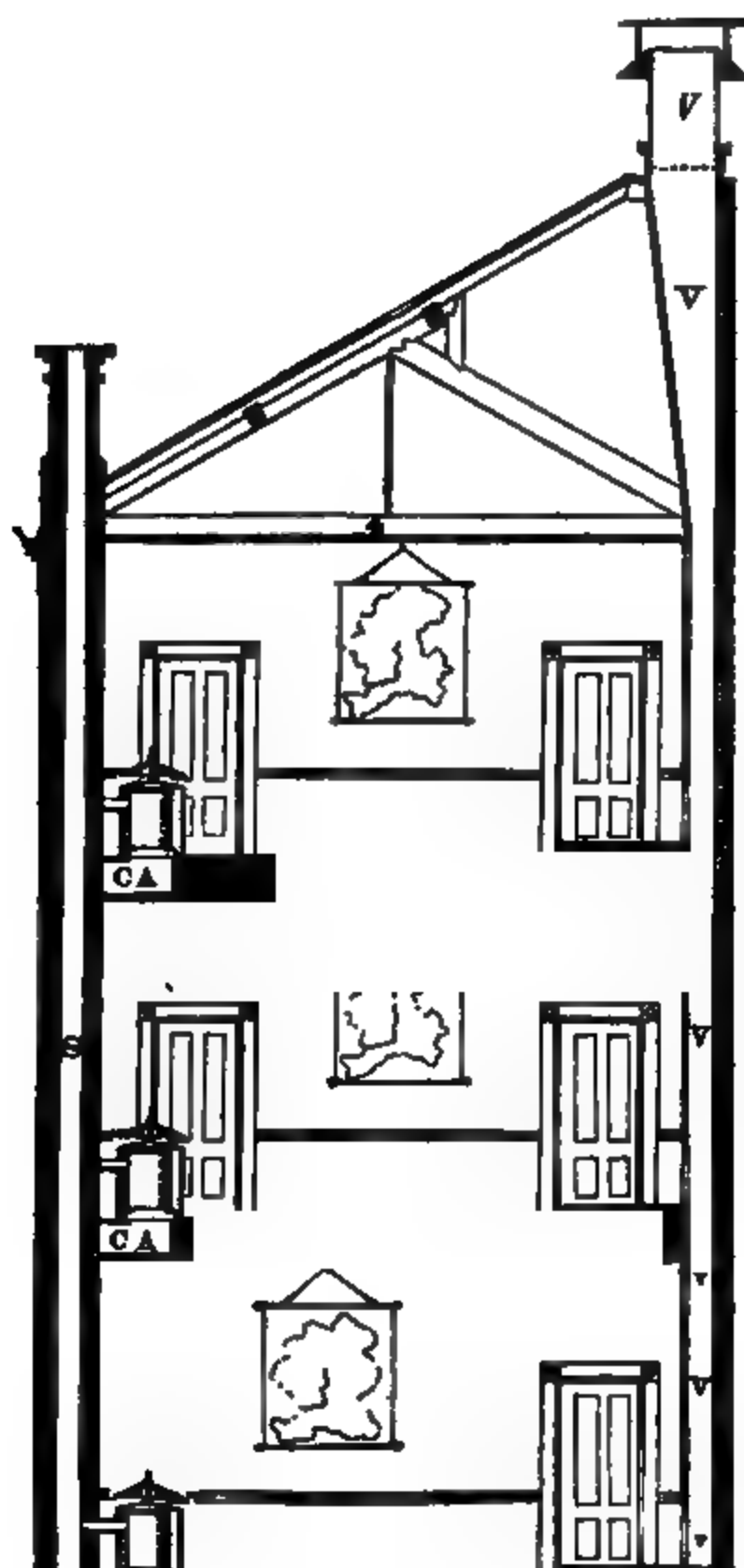
V, Ventilator, on the Roof, into which the three Ventiducts from the schoolrooms are discharged. This is twenty-five inches in diameter.*

v, v, Registers, to regulate the draught of air through the Ventiducts. There are two of these in each Ventiduct, — one at the bottom, to carry off the lower and heavier stratum of foul air, which always settles near the floor; and the other near the ceiling of the room, for the escape of the lighter impure air, which ascends with the heat to the top of the room. Each of these Registers has a swivel-blind, fitted with a stay-rod, and may be easily opened or closed by the Teacher.

c, c, Closets. The Ventiduct of each Story being in the centre of the projecting pier, affords room for Closets, on each side in the First Story, and on one side in the Second Story, as shown at c c. There are four in the First Story, two above and two below the wainscot. In the Second Story, there are two only, one above and the other below the wainscot; the other side of the pier being occupied by the Ventiduct of the First Story. In the Third Story there are of course none.

Scale 10 feet to the inch.

* A description, and larger plans, of this Ventilator, are given on page 144.



1, 2, 3, 4, Floorings of the First Second, and Third, Stories, and the Attic.

C, The Celler.

CA, Cold-air Boxes, opening under the Stoves.

S, Smoke Flue.

P, Teachers' Platforms.

V, Ventilator, emptying into the Ventilator on the Roof.

v, v, Ventilator Registers.

V, Ventilator.

This plan of arranging the Heating and Ventilating apparatus has been adopted by the Committee on Ventilation of the Grammar School Board ;* but as their plans and diagrams were taken from Mr. Ingraham's first draughts, before his final arrangement was decided upon, they are not so complete as these.

The preceding diagram gives a transverse-sectional elevation of the building.

It has already been stated, that the children are seated with their backs to the light, and their faces towards the Teacher's Table and the wall above and on either side of it. On this wall, and also on the two end walls, (as shown in the transverse-section,) are suspended Maps, Charts, and Pictures, not only for ornament, but for the communication of instruction. Vases of Flowers and Native Grasses ornament the window-stools and the Teachers' Tables ; and Statuettes and other useful ornaments and decorations are placed in various parts of the rooms : so that whatever meets the eyes of the children is intended to convey useful and pleasing impressions, encouraging and gratifying the love of the beautiful, and combining the useful with the agreeable. The Cabinets of Minerals, Shells, and other objects of Natural History and Curiosity, add much to the interest and beauty of the rooms.

On the back wall, on either side of the Teacher's Platform, at S S S S, are four large Slates, in cherry-wood frames, each two and a half by four feet, used instead of Blackboards. These Slates are far preferable to the *best* Blackboards, and cost about the same as common ones. The Teachers greatly prefer them to Blackboards. In using them, slate pencils are of course employed, instead of chalk or crayons, and thus the dust and dirt of the chalk or crayons,—which is not only disagreeable to the senses, but deleterious to health, by being drawn into the lungs,—are avoided. These Slates may be procured in Boston, of A. Wilbur.

Each School has convenient Recitation-rooms ; though, in consequence of the space occupied by the stairs to the Second and Third Stories, the lower Story is not so conveniently accommodated, in this respect, as could be desired. It has, however, two good Entries, which are used for this purpose. In the Second and Third Stories, there are three of these rooms, of which much use is made. Their location is shown in the Floor Plans.

In these ante-rooms, are Closets for Brooms, Brushes, and other necessary articles of that description, and also Press-closets, furnished with shelves and brass clothes-hooks, for the Teachers' private use. In these, also, are Sinks, furnished with drawers and cupboards, pails, basins and ewers, mugs, &c. Pipes leading from the Sinks, convey the waste water into the Vaults ; and in a short time, the waters of Lake Cochituate will be led into each Story.

Each School has its own separate entrance ; so that they will not interfere with each other. And each is provided with sufficient conveniences in its entry, for hanging the clothing of the pupils, thus avoiding the necessity of its ever being brought into the Schoolroom. Each has also two Umbrella-stands in its entry.

In the Cellar, are placed the Furnace, and necessary conveniences attached to it, with Bins for coal and wood. Also two Rain-water Butts, one at each end, which receive all the water from the Roofs. Being connected with each other, by leaden pipes, under ground, the water in both stands at the same level ; and a pipe, leading from the top of one of them into the Vault, prevents their ever running over.

The Cellar is paved with brick, and is convenient for a play-room, when the weather is too stormy for the children to go out of doors at recess-time.

Instead of having the usual out-door conveniences in the yard, they are here connected with the entries of the respective schoolrooms, so that no child has to go into the open air, except for play in recess-time, or to go

* See a notice of their plans on page 168.

house. This is considered a very great convenience, and a matter of the highest importance.

a, a, Surface of the water in the Sesspool.

b, Outlet to the common sewer.

c, c, Surface of the ground outside the building.

d, d, Floors of First Story, of stone.

e, e, Floors of Second Story.

f, f, Floors of Third Story.

g, g, Attic.

1, 2, 3, Seats and Wells of First, Second, and Third, Stories.

V, V, V, Ventiduct, ten inches square inside, extending from within one foot of the surface of the water in the Sesspool, to the Ventilator on the roof. Its sides are represented by the dotted lines.

Scale 10 feet to the inch.

The preceding transverse-section will show the peculiar arrangement of the Privies to the different stories, and the manner in which all unpleasant consequences or inconveniences are, it is believed, effectually guarded against.

By the Plans of the different Stories, it will be seen, that the Privies are in a Projection on the western end of the building, the wall of which is separated from that of the main building, by the space *i i*, this space being four inches between the walls, and extending from the floor of the First Story to the Attic. The doors leading from the entries are kept closed, by strong springs; and at B, in the southern wall, is a Blind, through which the air constantly passes into this space, and up to the Attic, whence it is conveyed in a tight box to the Ventilator on the Roof. Except in very cold or stormy weather, the window in the northern side is kept open, (the outer blinds being closed,) and thus the whole of the Projection is cut off from the main building by external air. The space between the Projection and the main building is not, however, so great as it would have been made, had there been more room.

It will be seen, that there is a distinct Well to each Privy, separated from the others by a brick wall ending *below* the surface of the water in the cesspool. Of course, the only odor that can possibly come into either of the apartments, must come from the well of *that* apartment, there being no communication with any other, except through the water. And as every time it rains, or water is thrown in from the sinks, the water in the cesspool will be changed, and washed into the common sewer, it would seem that no danger of unpleasant odor need be feared. When the City water is carried to every floor of the building, the conveniences for frequently washing out the cesspool will be greatly increased.

There are two apartments on each floor; one for the girls, at *f*, and another for the boys, at *g*. In the latter, is a trough, (*h*,) with a cesspool, and pipe leading into the well, under the seat. There is no window in the boys' apartment, but merely the blind, B, which extends from the floor to the ceiling. The girls' apartment, being in the front part of the Projection, is provided with a window similar to the others, and outside blinds.

Each apartment is fitted with pine risers, seats, and covers. The covers are hung with stout duck or India-rubber cloth, instead of metal hinges, which would be liable to corrode, and are so arranged that they will fall of themselves, when left. The edges of the cloth are covered with narrow slats. There is a box for paper in each apartment. The whole finish is equal to that of any other part of the building.

The interior plastering of all the walls of the building is hard-finished, suitably for being painted.

All the Rooms, Entries, Stairways, and Privies, are skirted up as high as the window-stools, with narrow matched beaded lining, gauged to a width not exceeding seven inches, and *set perpendicularly*.

The interior wood-work of the lower Schoolroom, as well as the interior of all the Closets and Cabinets, is painted white. The skirting of the Second Story is of maple, unpainted, but varnished. All the rest of the inside wood-work is painted and grained in imitation of maple, and varnished. The outside doors are painted bronze. The blinds are painted with four coats of Paris green, and varnished.

In some other schoolrooms in the City, the interior wood-work,—even of common white pine,—has been left unpainted, but varnished, with a very good effect; and it is contemplated to have some of the new Schoolhouses soon to be erected, finished in the same way. White pine, stained with asphaltum, and varnished, presents a beautiful finish, and is cheaper than painting or graining.

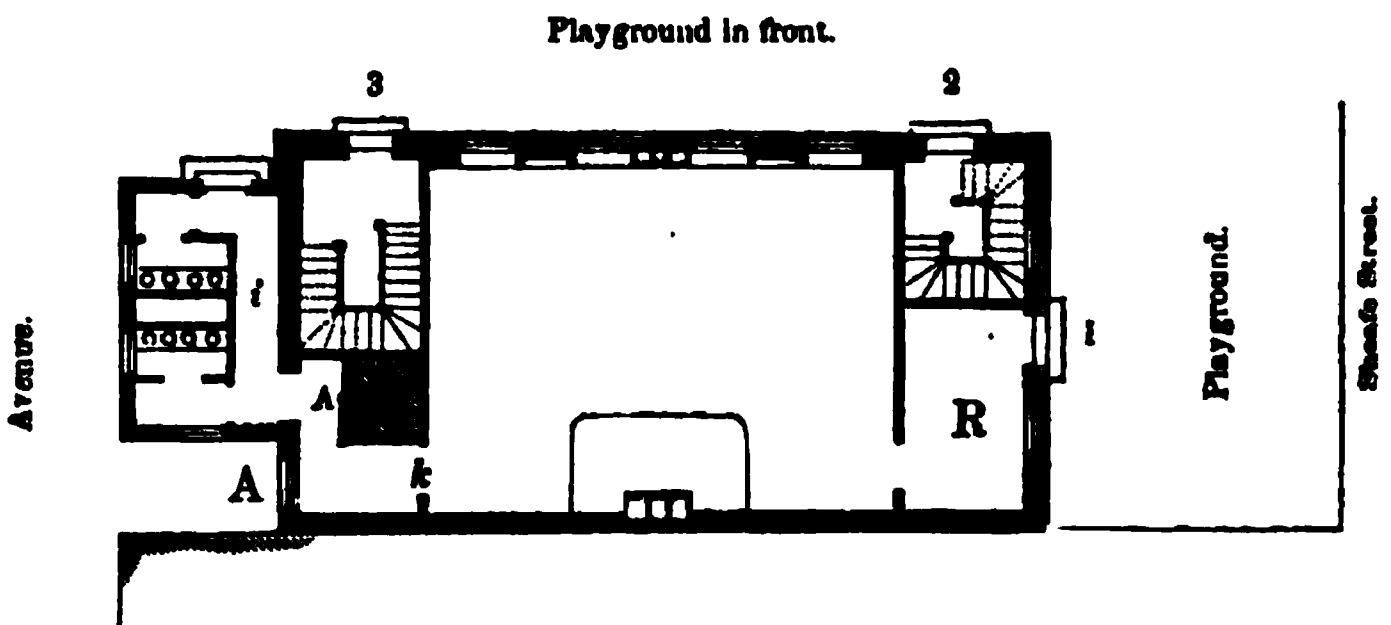
In the angles formed by the meeting of the walls with the ceiling of each room, and entirely around the room, are placed rods, fitted with moveable rings, for convenience in suspending maps, charts, and pictures, and to avoid the necessity of driving nails into the walls.

It has been stated, above, that the space between the Privies and the main building, in the Sheafe street Schoolhouse, is not so great as is desirable, nor

as it would have been, had there been more room. In the Schoolhouse in Tremont street, erected at the same time with that in Sheafe street, there being sufficient room for the purpose, the Projection containing the Privies is nine and a half by twelve feet, and the wells of the Privies are seven feet from the wall of the main building.

The following Plans were prepared for a new arrangement of the Sheafe street Schoolhouse, when it was contemplated to occupy a space eighty feet in depth, extending from Sheafe street to the Avenue in the rear. In these Plans, the Projection for the Privies is about ten by sixteen feet; and the entrance to each of the Privies is six feet from the wall of the main building, and separated from it by three doors. This gives them as much space, and separates them as much from the main building, as is needed.

Plan of First Story. Scale 24 feet to the inch.

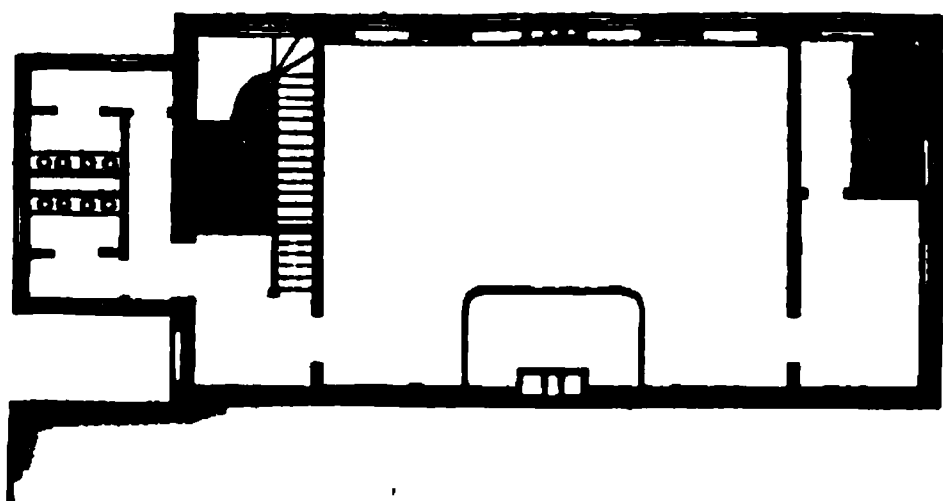


It will be seen, from this Plan, that the building was to have an end fronting on Sheafe street, (from which it was to be set back nineteen feet,) and a side looking into two of the Playgrounds, each of which was to be twenty-seven by thirty feet. The nineteen feet between the building and the street, and on a line with the building, the whole extent of the fifty-three feet on Sheafe street, was to form a third Playground.

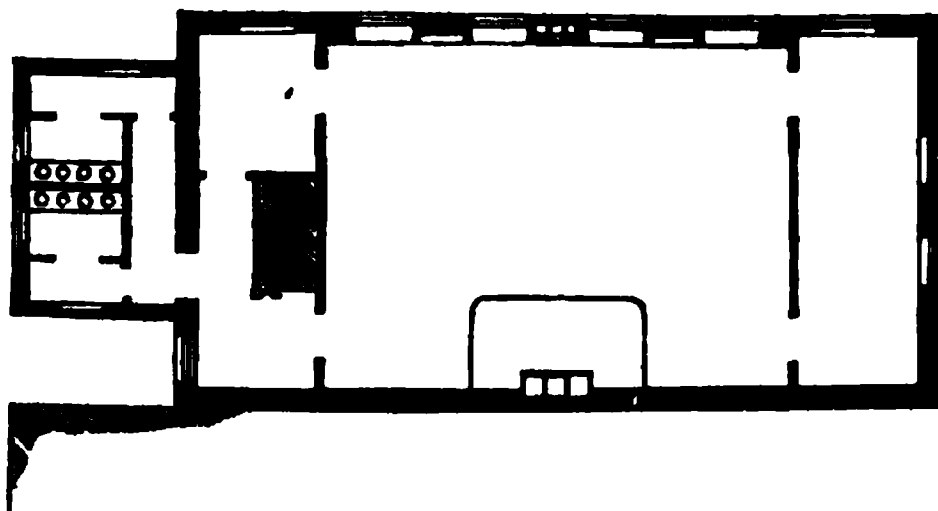
It has already been mentioned, that the ground at the rear of the building, on the Avenue, is eight feet lower than at the front, on Sheafe street; and the scholars of the lower room were to enter, as they do now, from the Avenue, by a door under the window A, and pass to their schoolroom up the stairs A, through the door k. Their Playground was to have been at the front end, on Sheafe street, to which they were to pass through the Recitation-room R, and out by the door 1. The space between the Privies and the main building, which is a three-feet passage, is shown at i, as in the former Plans, pp. 177, 179, 180.

The Entrance-doors for the second and third stories are shown at 2, 3.

Plan of Second Story.



Plan of Third Story.



In other respects, these Plans present some improvement over that of the present building in Sheafe street, which is only forty-four feet in length, while that proposed in these Plans is fifty feet. This, of course, allows more space for the stairways, Recitation-rooms, &c.

These three Plans will be easily understood, by comparing them with those on pp. 177, 179, 180, 181, which are there fully explained.

Some persons, perhaps, may think that ornaments and decorations, such as have been here described, are not *necessary* in a Schoolhouse; though none, we presume, will think them out of place. Why should not the places, where both Teachers and children spend so large a portion of their time, be made as pleasant and attractive as possible? The Schoolroom is the Teacher's parlor and drawing-room; and should always, not only be neat and tidy, but exhibit evidences of good taste and useful ornament. Why should blank and naked walls, presenting a cold and cheerless aspect, unrelieved by a single pleasant spot or speck of verdure, be the only or principal objects to meet the eyes of the young inmates of these establishments, who are here to receive those *first impressions*, which, as they are the most lasting, and indeed almost indelible, should always be useful, and promotive of some useful purpose? Everything which will give to young persons "a perception of *the Beautiful*," is of great value; and everything that can be done to render the interior of our schoolrooms pleasant and attractive, is of importance. "Why," says Mrs. Sigourney, in a valuable Essay 'On the Perception of the Beautiful,' "why should not the interior of our schoolhouses aim at somewhat of the taste and elegance of a parlor? Might not the vase of flowers enrich the mantelpiece, and the walls display, not only well-executed maps, but historical engravings or pictures? and the bookshelves be crowned with the bust of Moralist or Sage, Orator or Father of his Country? Is it alleged that the expense, thus incurred, would be thrown away, the beautiful objects defaced, and the fair scenery desecrated? This is not a necessary result. I have been informed, by Teachers who had made the greatest advances towards the appropriate and elegant accommodation of their pupils, that it was not so. They have said it was easier to enforce habits of neatness and order among objects whose taste and value made them worthy of care, than amid that parsimony of apparatus, whose pitiful meanness operates as a temptation to waste and destroy." And it will always also be found that those schools where the most attention has been paid to making the rooms pleasant and attractive to the children, will be the most orderly, and well disciplined, while in those held in ordinary rooms, where no attention seems to be given to refinement in appearances, the pupils are also proportionably unrefined and undisciplined.

"Let the communities," continues Mrs. Sigourney, in the Essay just quoted, "let the communities, now so anxious to raise the standard of education, venture the experiment of a more liberal adornment of the dwellings devoted to it. Let them put more faith in that respect for the beautiful, which really exists in the young heart, and requires only to be called forth and nurtured, to become an ally of virtue and a handmaid to religion. Knowledge has a more imposing effect on the young mind, when it stands, like the Apostle with the gifts of healing, at the 'beautiful gate of the Temple.' Memory looks back to it, more joyously, from the distant or desolated tracks of life, for the bright scenery of its early path." "But when the young children of this Republic are transferred from the nursery to those buildings, whose structure, imperfect ventilation, and contracted limits, furnish too strong an idea of a prison, the little spirits, which are in love with freedom and the fair face of Nature, learn to connect the rudiments of knowledge with keen associations of task-work, discomfort, and thralldom." "I hope the time is coming, when every isolated village schoolhouse shall be as an Attic temple, on whose exterior the occupant may study the principles of symmetry and of grace. Why need the structures, where the young are initiated into those virtues which make life beautiful, be divorced from taste, or devoid of comfort?"

"Do any reply, that 'the perception of the Beautiful' is but a luxurious sensation, and may be dispensed with in those systems of education which this age of *utility* establishes? But is not its culture the more demanded, to throw a healthful leaven into the mass of society, and to serve as some counterpoise for that love of accumulation, which pervades every rank, intrudes into every recess, and spreads even in consecrated places the 'tables of the money-changers, and the seats of such as sell doves?'"

"In ancient times, the appreciation of whatever was beautiful in the frame of Nature, was accounted salutary, by philosophers and sages. Galen says, 'He who has two cakes of bread, let him sell one, and buy some flowers; for bread is food for the body, but *flowers are food for the soul.*'"

"If the *perception of the Beautiful* may be made conducive to present improvement, and to future happiness; if it have a tendency to refine and sublimiate the character; ought it not to receive culture throughout the whole process of education? It takes root, most naturally and deeply, in the simple and loving heart; and is, therefore, peculiarly fitted to the early years of life, when, to borrow the language of a German writer, 'every sweet sound takes a sweet odor by the hand, and walks in through the open door of the child's heart.'"

We insert Mr. Ingraham's communication, unabridged, although it was drawn up by him as the material out of which we should prepare a description. We have also preserved his system of punctuation and capitalizing, though it differs from that followed in other parts of this work.

We think very highly of the plan of the Sheafe street School-house. Any objections we might entertain to some of the details, could be easily obviated in places where land is not so expensive as in Boston. We prefer, however, to see the Primary School-house with but one story, and in no case with more than two stories. In cities, the basement, under the school room, should always be paved, and fitted up for a covered play-ground, as is the case in Mr. Ingraham's plans.

Mr. Ingraham, in his letter, acknowledges his obligations to Mr. F. Emerson, and Dr. Henry G. Clark, for valuable aid in arranging his system of ventilation, and also to Mr. Joseph E. Billings, the Architect, for aid in the architectural arrangements, and for the manner in which the working plans were drawn.

Having given so minute a description of this School-house, we shall confer a favor upon such of our readers as may wish to erect buildings like it, if we insert, entire, Mr. INGRAHAM's original Specification for the workmen, with such modifications as he proposes to introduce into the new buildings, which are to be erected during the present year, (1848.)

SPECIFICATION

Of materials to be provided, and labor performed, in the erection of a Primary School-house, to be built on a lot of land lying upon the southerly side of Sheafe street, according to the plans of JOSEPH W. INGRAHAM, Chairman of the Primary School Committee on Schoolhouses, as exhibited in the Drawings made by Joseph E. Billings, Architect.

DESCRIPTION.

The building is to be three stories high; each Story is to contain a Schoolroom, Recitation-rooms, Entries, and Privies, and to finish twelve feet high, in the clear. The first floor is to be set eighteen inches above the ground, at the front of the building. The Cellar, under the whole building, (except the entrance to the first-story Schoolroom, which is to finish six feet and eight inches,) is to be finished seven and one half feet high, in the clear. The main building is to measure twenty-six by forty-four feet, upon the ground plan, above the underpinning; the Projection on the east end, three and one half by twenty and one half feet; and the Projection containing the Privies, four and one half by sixteen and one half feet. The Roof is to have an inclination of thirty degrees.

The Front and Side Walls of the main building, and the Front Walls of the Projections, above the underpinning, and the Rear Wall of the main building and sides of the Projections, from the level of the ground on the rear of the lot, are to be built of brick

MASON'S WORK.

Excavating.

The Dirt and Rubbish is to be dug out, as required, for the Cellar, the Cellar-Walls, the Vault, and the Drains; and the remainder of the lot is to be graded up, on an inclination of one inch to a foot, from Sheafe street to the front of the building.

All the rubbish, and the dirt that is not required for filling in, is to be removed from the premises. All the Loam is to be carefully taken up, kept by itself, and spread upon the surface of the Playground, as may be directed by the Committee.

Rough Stone.

The Footings to all the walls and piers, and the Cellar and Foundation-walls, are to be built of square-split Sandy-Bay or Quincy cellar-stone. The Bottom or Footing-course is to be puddled and rammed to a perfect bed, and those to the main walls and the piers, are to be laid entirely below the level of the cellar floor. The Walls are to be laid in lime mortar; and those of the Cellar are to be faced and pointed on the inside. The Footings are to be eighteen inches rise. Those to the main walls are to be three feet in width; those to the projections are to be two and one half feet in width; and those to the piers are to be three feet square. The Front Wall of the Cellar is to be two feet thick, and the other Walls twenty inches. Good and sufficient Foundations are to be laid for the Steps, Window Curbs, &c.

Hammered Stone.

The Underpinning to the front walls of the main building and projections, and the Returns at the first-story Entrance-doors, the Steps to the Entrance-doors, the Thresholds to the Entrance-doors and Gates, the Curbs, Sills, and Caps, to the cellar-windows, the Curbs to the cesspool, the Fence-stone, and the Platform steps to the Entrance-doors, are to be of Quincy granite, of even color, free from sap, rust, or flaws, fine-hammered, with all the returns, rabbets, washes, &c., indicated by the Drawings.

The Floors to the Privies on the first-story, a Moveable Cover to the Vault, and Hearth-stone in each Schoolroom, are to be of North-River Flagging-stone. About

three quarters of the Playground is also to be laid with North-River Flagging-stone, as may be hereafter directed by the Committee. The rest of the Playground is to be left unpaved, for flower beds, &c.

There is to be an Iron Strainer fitted to the Sesspool-cover. The Hearth-stones are each to be three feet square, with a circular hole in the centre, eighteen inches in diameter, for the admission of the cold air under the stove.

Sand-stone.

There is to be a set of Caps and Sills to each of the windows in the brick walls, and Caps to the entrance-doors. The Caps to the doors are to be four courses rise, and ten inches thick, and those to the third-story front windows eight and one half inches thick: the other Caps are to be four inches thick. The Sills to the windows are to be eight inches wide. The Sills and Caps to the blind-openings, in the rear wall of the privies, are to be of the full thickness of the wall, and finished on all sides. There is to be a Moulded Belt on the front, and over the east and west entrance-doors; and a Base and Cap to the Chimney, of the forms shown by the Drawings. All the above is to be of the first quality of Connecticut free-stone; that in the faced-brick-work is to be sand-rubbed, and the remainder fine-chiselled.

All the stone-work is to be set in lime-mortar, and Cramped, Headed, and Pointed, as required.

Brick-work.

The Front Walls, above the underpinning, the Rear, Side, and Privy Walls, from the rough stone, the Piers in the cellar, the Backing-up of the stone-work, the Lining of the Vault, the Walls between the privies, the Sesspool, the Drains, and the Flues, are to be built of hard-burnt Charlestown (not Fresh Pond) bricks, excepting the Facing of the front and side walls of the main building and the front walls of the projections, the Covings, and the Chimney, which are to be of the first quality of pressed-brick, laid plumb-bond, tied into the other work with bond-irons in every seventh course.

The Front Wall, to the top of the belting, and above the top of the third-story windows, with the corner Piers on each side, and the Rear Wall, from the bottom to the top of the first-story floorings, are to be sixteen inches thick. The remainder of the Front and Rear Walls, the Side Walls of the main building, and the Front Walls of the Projections, are to be one foot thick. The Rear and Side Walls to the Privies, the Side Wall to the easterly Projection, and the Walls of the Sesspool, are to be eight inches thick. The Lining of the Vault, and the Walls between the Privies, are to be four inches thick. The Bottom of the Vault is to be laid three courses thick. The Piers in the cellar are to be sixteen inches square, on the ground.

The Vault, (which is to be of the sesspool plan, and so arranged, that no solid matter shall remain in the vault, but shall all pass off into the common sewer,) Sesspool, Drains, Wall between the privies, and the Hollow Wall between the privies and main building, are to be laid throughout with cement-mortar, and plastered inside, throughout, with the same. The remainder of the brick-work is to be done with lime-mortar. The Drains are to be barrel-form, the larger one to be of sixteen inches bore, and the smaller ones, one foot. The Vaults are to be not less than six feet deep.

The Cellar, and the Passage-way from the east end of the building, out to Margaret Avenue, are to be paved with the best paving-brick, on perfect foundations of gravel and sand.

The Cold-air Flues are to be twelve by eighteen inches, inside, and the Smoke Flues eight inches square, inside, all smoothly plastered, inside and out, with a stout coat of lime-mortar. The Flues are to be arranged as shown in the diagram. [See p. 182.]

The Cold-air Flue or Box, leading horizontally into the room to the aperture under the Stove, is also to be thoroughly and smoothly plastered, and made perfectly secure from danger by fire, in case of live coals or ashes dropping into it from the Stove. It is to be fitted with a valve, having a handle in the room, to regulate the admission of air.

Lathing and Plastering.

All the Walls, Ceilings, and Stairways, throughout the first, second, and third stories of the main building and the Projections, and the Ceiling of the Cellar, are to be Lathed and Plastered with a stout coat of lime and hair, and hard-finished, smoothly, with lime and sand, for painting; excepting the Ceiling of the Cellar, which is to be finished on the hair-coat, and the Wall between the main building and the privies, which is to be plastered upon the bricks. The Walls of the Cellar are to be white-washed with three coats.

Care must be taken, that the beads on the corners of the walls and stairways are not plastered. The quirks are to be neatly cut, and the beads kept clean.

Slates, Slating, &c.

Smoothly-polished Slates are to be set into the back wall of each Schoolroom, on each side of the Ventilating Pier, and neatly finished around the edges. They are to be two and a half feet wide, and ten feet in the whole length. They may be in slabs of five feet each, in length.*

The Roof is to be Slated with the best of Ladies' Slates, put on with Composition-nails, and properly secured with flashings of sheet lead, weighing three-and-one-half-pounds to the square foot, and warranted perfectly tight for two years.

Coppering.

There are to be moulded Copper Gutters, on the front and sides of the main building and front and rear of the Projections, worth one dollar and twenty-five cents per foot. They are to run back six inches under the slates.

There are to be two four-inch-square Trunks, from the gutters to the water-butts in the cellar; three-inch ones from the rear of the Projections to the Vault; and a round one from each butt to the vault. The Trunks are to be made of twenty-four-ounce cold-rolled copper, put up, connected with the gutters, and led off in a proper manner, with suitable lead pipes, of three inches in diameter.

Iron-work.

There is to be in each Smoke Flue an Iron Casting, with a funnel-hole twenty-four inches from the floor, and a hole below for clearing out the mouth of the flue; each hole to be fitted with a tight stopper.

There is to be an Iron Fence, on the line of Sheafe street, across the whole front, with two Gates, and an Iron Gate at the entrance of the back passage, on Margaret Avenue. All the Gates are to be fitted with Lever Locks, and Latches, of the best quality, and *small* duplicate keys.

There is to be an Iron Grating to each of the cellar-window curbs, of inch-and-a-quarter by one-quarter-inch bars, set one inch from centre to centre; and wire netting above it in front of the windows.

All the Iron-work is to be painted with three coats of lacker.

There are to be stout Iron Scrapers, placed at each door, where directed by the Committee.

There are to be an Iron Strainer to the Sesspool Cover, and Strong Iron Rings to the Moveable Cover of the Vault.

There are to be Composition Rods, in all the angles formed by the meeting of the ceilings and inner walls, in the Schoolrooms and Recitation-rooms, attached by neat staples, and fitted with Moveable Brass Rings, at suitable distances, for hanging charts, maps, &c.

CARPENTERS' WORK.

Framing.

The Floors and Roofs are to be Framed in the manner indicated by the Drawings, with good sound spruce lumber, of the following dimensions:

Principal Flooring-Joists,	3 by 14 inches.
Short Flooring-Joists,	3 " 11 "
Trimmers and Headers,	5 " 14 "
Partition Studs,	2 " 4 "
Privy-Floor Joists,	2 " 10 "
Attic-Floor Joists,	2 " 10 "
Ties to Roof Trusses,	7 " 10 "
Rafters to Trusses,	7 " 12 "
Collars,	7 " 9 "
Purlins,	8 " 8 "
Wall Plates,	3 " 8 "
Small Rafters,	3 " 6 "

The Flooring-Joists are to be worked to a mould, crowning one inch. They are to have a fair bearing of four inches on the walls, at each end, and to be bridged with two lines of Cross Bridging.

The Trusses in the Roof are to be fitted with Wrought-iron Bolts, one inch in diameter, with Heads, perfect Screws, and large Washers and Nuts.

* These large Slates may be procured in Boston, and cost no more than good Blackboards. When it is not convenient to obtain them, the walls, where Blackboards are needed, may be adapted to the purpose, by mixing the Plastering or Hard-finish with Lampblack, rubbing it down smoothly, and allowing it to become perfectly dry and hard before it is used. Or, Blackboards may be covered with the composition mentioned on p. 197.

The Floor-Joists are to be framed into the Trimmers, and the Ceiling-Joists of the third story into the Ties of the Roof-Trusses, with Tusk-Tenons, and properly secured with hard-wood Pins.

All the Partitions in the main building are to be set with two-by-four-inch plank Studs, so as to give five nailings to a lath, thoroughly bridged throughout, and trussed over the openings.

There is to be a Lintel, four by eight inches, over each window, and other opening in the walls that requires it, and under the withs of the Privies, with a fair bearing of eight inches at each end.

Enclosing.

The Under-Floors of the Rooms, Entries, Passages, Platforms, and Privies, in each story, and the Floor of the Attic, are to be laid with No. 3 Pine boards, planed, jointed, laid close, and thoroughly nailed. The Roofs are to be covered with Matched boards, of the same quality, and thoroughly nailed.

Furring.

All the Walls, throughout, (excepting the cellar walls, the back walls of the several privies, and the side walls of the privies next to the main building,) and all the Ceilings, Entries, and Stairways, are to be Furred with three-inch Furrings of sound, seasoned, dry No. 3 Pine boards, spaced so as to give five nailings to a lath. They are to be put on the walls with twelve-penny nails, and on the ceilings with ten-pennies.

Grounds, three-fourths of an inch thick, are to be put up for all the finish, and three-quarter-inch Beads on all the angles and corners of the walls and stairways. The Beads are to be kept clean.

There are to be two Strips of Furring put up, (for convenience in driving nails for hanging charts, &c.,) extending entirely around the Schoolrooms, at distances of three and eight inches from the ceilings; and also similar Strips for the same purpose, set perpendicularly, on the rear and sidewalls, as directed by the Committee. Also, Composition Rods, in the angles of the ceiling, all round the rooms, with Moveable Rings at suitable distances, for picture lines.

Cold-air Boxes, and Ventiducts.

The Cold Air is to be taken in at one of the cellar-window openings, which is to be finished outside with a plank frame and coarse iron-wire netting.

The Air is to be conducted into the Brick Cold-air Flue of each Schoolroom, in separate Boxes, each twelve by eighteen inches, inside, made of thoroughly-seasoned Pine boards, smoothed on the inside, and put together with two-inch screws.

The Ventiducts, or Ventilating-Flues, are also to be made of thoroughly-seasoned Pine boards, smoothed on the inside, and put together with two-inch screws. There is to be a separate one for each Schoolroom, and the Privies, and each is to be fitted with two Swivel-blind Openings, or Registers, one at the floor and the other at the ceiling, with Stay-rods to regulate them, as may be directed by the Committee.

There are to be two Closets on each side of this Pier, in the first story, and on one side, in the second story, as shown in the diagram, on p. 183.

The Ventiducts, or Ventilating-Flues, for the Schoolrooms, are each to be sixteen inches square, inside; that for the Privies is to be ten inches square, inside. The Swivel-blind Openings in the Schoolrooms are to be sixteen by twenty-four inches; and those in the Privies are to be ten inches square.

The Ventiducts, or Ventilating-Flues, for the Schoolrooms, are to be brought together in the attic, and connected with the Ventilator on the main Roof.

The Ventiduct, or Ventilating-Shaft, for the Privies, is to be ten inches square, and carried down to within one foot of the surface of the water in the Vault or Sesspool; and the air from this Shaft, and also from the space between the privies and the main building, is to be conducted in a tight box over the ceilings of the third-story privies to the Ventilator on the ridge.

Windows and Blinds.

All the Windows, (excepting those in the cellar,) are to have Double Box Frames, with two-inch pine plank Sills and Yokes, inch inside and outside Casings, one-and-one-fourth-inch hard-pine Pulley-styles, five-eighths-of-an-inch Inside Beads, and five-sixteenths-of-an-inch Parting Beads.

The Sashes are to be made of pine, one-and-three-fourths-inch thick, moulded and coped. They are all to be double hung with the best White Window Lines, Iron Pulleys with steel axles, and Round Iron Counter-weights. All the Sashes are to be fastened with strong Bronzed Sash-fastenings, of the best quality, to cost five dollars and fifty cents per dozen.

All the Windows in the first and second stories are to be fitted with one-and-one-fourth-inch Framed Blinds, two parts to each window, hung in light Box-frames, with Weights, Lines, and Pulleys, in the same manner as the sashes, excepting that they are to run up above the tops of the windows, in close boxes, and to have satisfactory Knobs, Rings, or Handles, on the bottom rails, to draw them down.

The Windows in the third story are to have Inside Shutter-Blinds, one inch thick, made in eight parts to each window, hung with Iron Butt-hinges, and fitted with Bronzed Hooks and Staples, and Rosewood Knobs.

The Openings in the Rear Wall of the Privies are to have Stationary Blinds, four inches thick, and reaching to the floors. The Windows in the Front Wall are to have Outside Blinds, one-and-three-fourths-inch thick, hung and fastened in the usual manner.

All the Windows, and the Openings in the Privy-Walls, are to be finished with one-and-one-fourth-inch moulded Architraves, with turned Corner-blocks. [Care to be taken to have no Architraves or Corner-blocks omitted on one side, or cut partly off.] Those in the first story are to have panel Jambs, and Soffits and Stools. Those in the second story, and all the Openings in the Privies, are to have Edge and Sill Casings. Those in the third story are to have Elbows to the Shutter-boxes, moulded panel Soffits, and wide Stools.

The Cellar-Windows are to be made with plank Frames, rabbeted for the sashes; and are to have Single Sashes, hung with Iron Butt-hinges to the tops of the frames, fastened with strong Iron Buttons, and fitted with Catches to hold them open when desired.

There is to be a Single Stationary Sash over each Entrance-door, made in six lights.

There are to be two Skylights in the Roof, which are to be made and hung in a neat and substantial manner, and properly fitted to rise and fasten.

There is to be a Scuttle, in the ceiling of the third story, made, cased, and hung, in a neat and substantial manner.

Doors.

All the Doors, throughout, (excepting the Outside ones, which are to be two-and-one-fourth-inches thick, and the Closet doors, which are to be one-and-one-fourth-inch thick,) are to be two inches thick, made in four moulded Panels each, hung with three four-inch iron Butt-hinges, and fastened (excepting the outside ones) with Robinson's best \$2.50 Mortise Locks, with Catches and Bolts, Rosewood Knobs, Bronzed Trimmings, and *small* duplicate Keys to each. The Outside Doors are to be fastened with double-bolt Lever Locks of the best quality, having duplicate keys as *small* as practicable. The Privy Doors are to have strong Door-springs, in addition to the other trimmings.

All the Inside Doors, excepting those to the closets, are to be finished with hard-pine Sills, two-inch rabbeted and beaded Frames, and Architraves as described for the Windows, with Plinths. The doors, in every case, to be set so far from the walls, as to give the full Architraves and Corner-blocks on both sides.

The Outside Doors are to be hung to three-inch plank Frames, properly dogged to the thresholds and wall, and finished inside like the Inside Doors.

The Entrance and Cellar Doors are to be four feet by seven feet eight inches. The Inside Doors are to be three feet by seven feet four inches. The Privy Doors are to be two feet six inches, by seven feet four inches.

Stairs.

The Stairs are to be framed with deep plank Stringers and Winders, as shown by the Drawings. They are to be finished with hard-pine Risers, one inch thick, Treads one-and-one-fourth-inch thick, and Balusters one-and-one-eighth-inch diameter. The String and Gallery finish is to be of white pine, and the Posts, Newels, and Rails, of cherry. The bottom Posts are to be seven inches in diameter, turned, and the Rails three inches wide. The Rails are to be not less than three feet high, measuring from the nosing of the Steps.

There are to be two Flights of Stairs to the Cellar, framed with plank Stringers and Winders, and finished with planed pine Risers and Treads, and close Partitions one-and-one-half-inch thick, matched and planed.

There is to be a neat Flight of Portable Steps, to ascend from the third story to the Attic, and others to ascend from the Attic to the Skylight in the Roof.

Skirting.

The Rooms, Entries, Stairways, and Privies, are to be Skirted up as high as the window stools, in the respective stories, (except on the back sides of the Rooms,) with narrow matched beaded Lining, not to exceed seven inches in width, Capped to correspond with the nosing of the window stools. The Lining is to be gauged to a

width, and set perpendicularly. That on the back Wall is to be fitted to the Slates in that wall, which are to rest on the Capping. That in the first story is to be of cherry-wood, the second story of maple, and the third story of white-pine, wrought and finished smoothly, suitable for being stained and varnished without painting.

Floorings, &c.

The Platforms are to be furred up, as shown by the Drawings, and the Stairways, Platforms, and Hearths, are to be bordered, and the Floors to be laid, with narrow hard-pine floorings, perfectly jointed and thoroughly nailed. The Strips are to be gauged to a width respectively in the schoolrooms, and the joints are to be broken, at least three feet, so that no two strips of different widths will but on to each other.

Cabinets, Closets, Clothes-Hooks, &c.

There are to be two Cabinets, in each Schoolroom, between the windows, above the skirting, and as high as the windows, with double cherry Sash-doors, each hung with three Brass Hinges, fastened with Thumb-catches and Locks, and fitted with Rosewood Knobs. There are to be twelve Shelves in each, and immediately below them are to be small Closets, with four Shelves in each, and double Doors, hung and fastened in the same manner as the sash doors. The shelves are to be placed as directed by the Committee. Six of them are to be inclined, with two narrow ledges on each.

There are to be two Closets in each side of the Ventilating Pier, in the First Story, and two in one side in the Second Story, as shown at *o o*, in the diagram on page 183. Each Closet is to be fitted with three shelves, and the doors are to be hung and fastened in the same manner as the Closets under the Cabinets.

There is to be for each Schoolroom, where directed by the Committee, a Press-closet, having three Shelves on one side, with six brass double Hat-and-Coat-Hooks, on beaded cherry-wood cleats; the Door to be neatly hung, fastened, and trimmed, similar to the other doors.

There is to be in the entry of each Schoolroom, where directed by the Committee, a Closet, for brushes, brooms, coal-hod, &c., two by three-and-one-half feet, made with matched boards, and fitted with three Shelves on one side, and eight Hooks on the other side and back. The Door is to be made, hung, and fastened, to correspond with the other doors.

There is to be a Sink, attached to each Schoolroom, where directed by the Committee, made of two-inch pine plank, the top hung with stout hinges, and with Drawers and Cupboards below. It is to be fitted with a Composition Sesspool, lined with zinc, and a lead Waste-pipe, leading to the vault. Suitable Pipes, to lead the City water into the sink in each story, are to be provided.

There is to be a Dumb-waiter from the cellar to the third story, opening into each story, for raising coals, wood, &c.

There are to be seventy extra-stout iron double Hat-and-Coat-Hooks, to each Schoolroom, put up on beaded cherry-wood Cleats, as directed by the Committee.

There are to be two Umbrella-stands, in each Entry, to hold six umbrellas each.

Coal-Bins, &c.

There are to be three Coal-Bins in the Cellar, each capable of holding three tons of Coal, having Covers hung with strong wrought-iron Hinges, and sliding Gates, with boxings around them to keep the Coal from the floor. Also, three Closets for Kindlings, the doors to be hung with iron Strap-hinges, and fastened with iron Buttons.

There are also to be in the Cellar, two large iron-bound Water-butts, with metal Faucets.

Privy-Finish.

The Privies are to be fitted with pine Risers, Seats, and Covers. The Covers are to be hung with stout Duck, or India-rubber cloth, instead of metal Hinges; the edges of the cloth to be covered with narrow slats. They are to be so arranged, that they will fall of themselves when left. There is to be a Box for paper in each Privy, and the Boys' Privies are to have Troughs, lined with zinc, with Sesspools. The whole finish of the Privies is to be equal to that of the other parts of the building.

Painting.

All the Hard-wood Finish, (except the Skirting of the first and second stories, which is to be varnished,) is to be oiled, with two coats of boiled Linseed-oil, well rubbed in with cloth.

All the Outside wood-work, the Copper-trunks, and the inner walls throughout, are to be prepared and painted with three coats of Oil-and-Lead paint, of such color as the Committee may direct. The Outside-doors are to be painted Bronze.

The Insides of the Closets and Cabinets are to be painted white, and the Teachers' Platforms in imitation of Marble. The Blinds are to be painted with four coats of Paris Green, and Varnished. The third-story skirting is to be stained with asphaltum, and varnished. The rest of the Inside Pine Finish is to be Putty-stopped, Primed, and Painted and Grained, in imitation of Oak, Maple, or other color, as directed by the Committee, and Varnished.

All the Painting and Varnishing is to be equal to that of first-class dwelling-houses.

Glazing.

All the Sashes, throughout, are to be glazed with Crystal Sheet Glass, of double thickness, and of the best quality. Each light is to be properly Bedded, Sprigged, and Back-Puttied.

The Windows are to have Lights of the following dimensions, as shown in the Drawings :

First Story, Front Windows, eighteen Lights, each eleven by fourteen inches. First Story, Rear Window, twelve Lights, each eleven by sixteen inches. That in the west wall, eight Lights, each eleven by sixteen inches.

Second Story, Front Windows, eighteen Lights, each eleven by fourteen inches. Second Story, Rear Windows, eight and twelve Lights, each eleven by sixteen inches. Front Window in easterly Projection, twelve Lights, each eleven by fourteen inches.

Third Story, Front Windows, twelve Lights, each eleven by nineteen inches. Third Story, Rear Windows, eight and twelve Lights, each eleven by fifteen inches. Front Windows in easterly Projection, eight Lights, each eleven by nineteen inches.

The Cellar Windows, eight Lights, each eight by ten inches.

The Sashes over the Doors, each six Lights.

The Skylights are to be two feet six inches by three feet six inches.

Ventilators.

There are to be two of Emerson's Patent Ventilators, of galvanized iron ; one on the Roof of the Main Building, twenty-five inches in diameter, and another on the Roof of the Privies, twelve inches in diameter.

Furniture.

Each Schoolroom is to be furnished with sixty Small Arm-Chairs, of Mr. INGRAHAM's pattern, such as are used in the other Primary Schools in the City.* Also, with a Table, for the Teacher's Platform, four feet by two, (made of Mahogany, Black Walnut, or Cherry-wood, as directed by the Committee,) furnished with two Drawers, and fitted with Locks, Keys, and Rosewood Knobs, of the best quality.

Memorandum.

No bricks, stone, lumber, or other building-materials, of any description, are to be placed on the garden-plat ; and the Trees and Garden are to have a rough box built around them, for their preservation from injury. No lines are to be fastened to the Trees, for any purpose whatever.

All the Lumber is to be well and thoroughly seasoned ; and all that is in sight is to be free from Shakes, Sap, and Knots ; and that and every part of the work is to be equal to any used in first-class dwelling-houses.

MR. INGRAHAM'S COMPOSITION FOR BLACKBOARDS.

Lampblack and Flour of Emery, mixed with Spirit-Varnish.

No more Lampblack and Flour of Emery should be used, than are sufficient to give the required black and abrading surface ; and the Varnish should contain only sufficient gum to hold the ingredients together, and confine the Composition to the Board. The thinner the mixture, the better.

The Lampblack should first be ground with a small quantity of Alcohol, or Spirit-Varnish, to free it from lumps.

The Composition should be applied to the smoothly-planed surface of a Board, with a common painter's brush. Let it become *thoroughly dry and hard before it is used*. Rub it down with pumice-stone, or a piece of smooth wood covered with the Composition.

Boards prepared in this way are almost equal to Slates, and will last for years ; and they can be used with slate-pencils, which are much better than crayons or chalk, on account of their freedom from dust and dirt. Crayon or chalk dust is deleterious to health, as well as to cleanliness.

This Composition may also be used on the walls.

* See pp. and 181.

PLANS, &c., OF BRIMMER GRAMMAR SCHOOL, BOSTON.

This building was erected in 1843. It is situated on Common-street, near Washington. It is 74 feet in length on the street, by 52 feet deep, with three stories. The entrance is in the center of the front into a hall 8 feet wide, leading through into the yard in the rear, which is divided by a wall into three portions. The passage to the second and third floors is by a double flight of stairs near the front door.

The first floor is occupied by two Primary School-rooms, each 30 by 22 feet, and 11 feet high; and the Ward-room, 30 by 50 feet.

The school-room on the *second floor* is 70 feet by 37 feet wide, and 14 feet 6 inches high between the bays. The ceiling is plastered up between the bays, (cross timbers) by which eighteen inches are gained in height, dividing the ceiling into equal compartments. There are two recitation rooms, one

on each side the entrance, 17 feet 6 inches, by 11 feet 4 inches each, with two windows in each room, and benches on all the sides for the pupils. The school-room is lighted on three sides, and contains 118 desks, and 236 chairs, two chairs to each desk, the desks and chairs being of four sizes. The tops of the desks are cherry wood, and the chairs are Wales' patent. The desks are separated by aisles one foot four inches in width, except the center aisle, which is two feet wide.

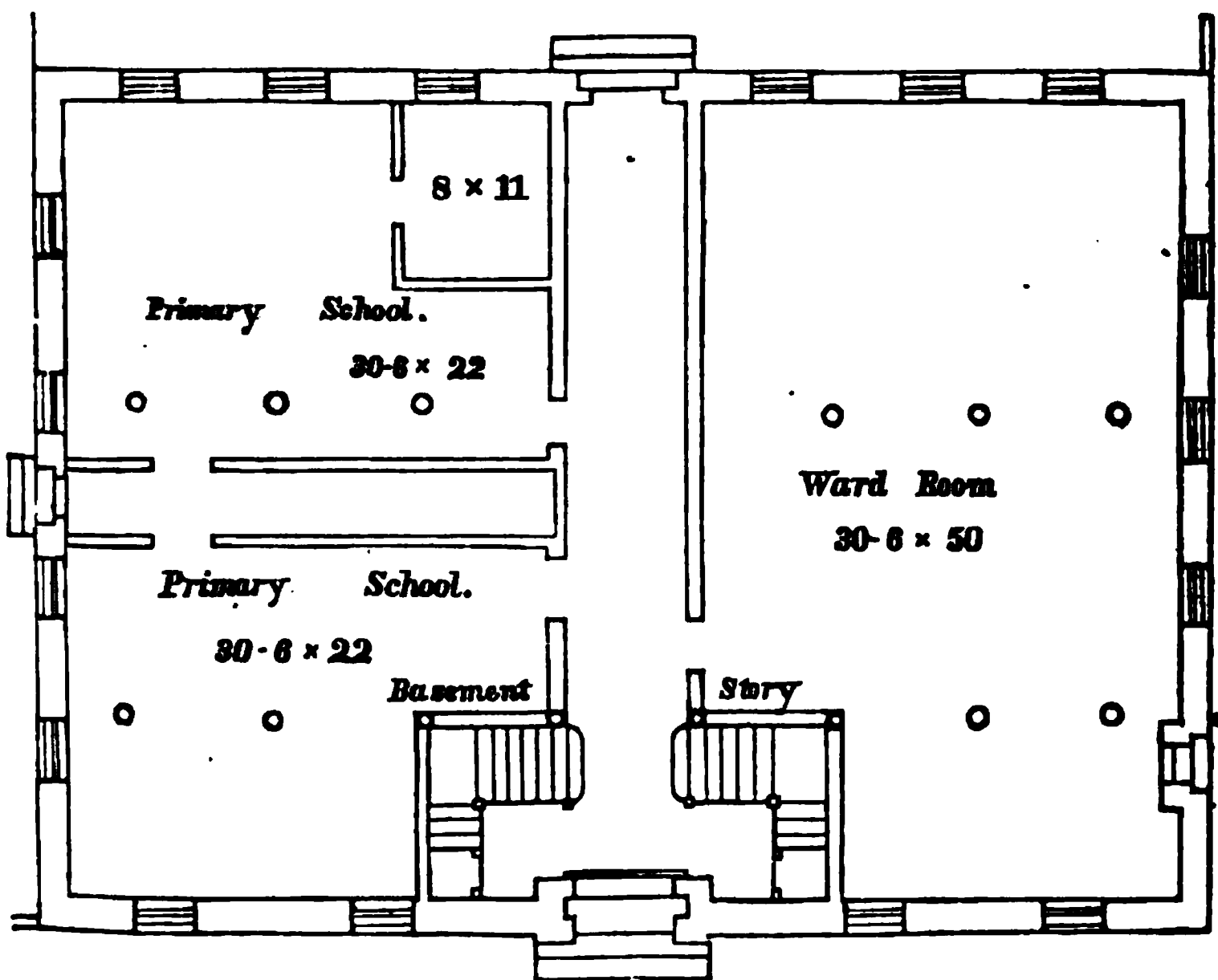
The aisles on the side nearest the recitation-rooms, are three feet wide, and those at each end, 2 feet 6 inches each. The platform on which are the desks of the master and assistants, is eight inches high, and 6 feet 6

inches wide, and the desks are so placed *that the pupils sit with their backs to the platform*; and the pupils are so arranged at the desks in classes and sections, that when one class is reciting, the desk is only occupied by one pupil. The windows are shaded by inside blinds painted green.

The school-room on the *third floor* is of the same size, having an arched ceiling 13 feet high in the center, with recitation-rooms and other arrangements similar to the school-room on the second floor.

The building is warmed by two furnaces, and ventilated by six flues, discharging into the attic, from which the impure air is carried off by copper ventilators in the roof. The openings into the flues in the school-rooms are controlled by Preston's ventilators.

The frame of Preston's Ventilator is made of a flat bar of iron $2\frac{1}{2}$ by $\frac{1}{4}$ inch, framed at the corners, the end at each corner running by in order to receive a clamp to screw the frame to the brick work; the door is of plate iron, ($\frac{1}{8}$ wire gage), with a rod passing down the center of the plate, on the back side, each end of the rod running by the plate and entering the frame, forming a pivot on which the plate or door of the ventilator turns. The door shuts against a projection in the frame.



The Brimmer school has two masters, one in each room, and each with an usher and female assistant.

[Since the above description was first published, (in 1843) the seats and desks have been reversed, so that the pupils sit with their faces to the platform. The former method was found by the teacher to be "very inconvenient, and wholly impracticable. The scholar should see the face and hear the voice of the Principal as much as possible."]

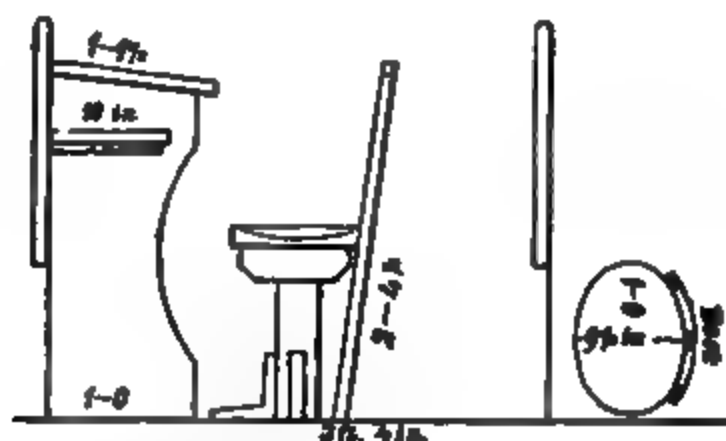
The second and third stories are furnished with *Wales' Patent American School Chair*, which has been very extensively introduced into the public schools of Boston and vicinity.

WALES' AMERICAN SCHOOL CHAIR.

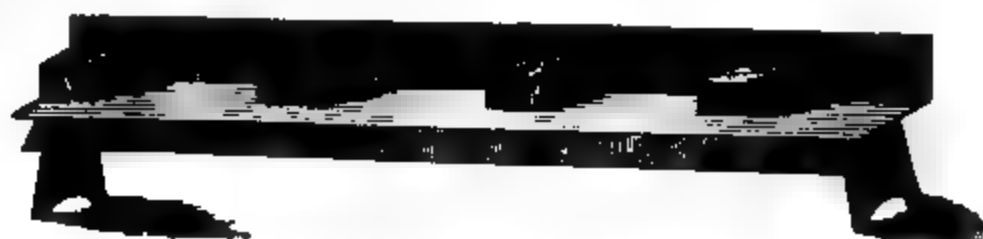
The seat of the chair is based upon a pedestal of cast iron, having no joining to get loose or come apart in the arm, and is made fast by screws both to the seat and to the floor. The back of the chair is firmly supported by the middle piece, which passes directly from the top through a dove-tail in the seat into the foot of the pedestal. These chairs are manufactured by S. Wales, Jr., 66 Kilby street, Boston, of any height from 8 inches to 17 inches from the top surface of the seat to the floor.

Mr. Wales has, during the present year, (1848,) greatly improved the style of his chairs, and now manufactures a desk with iron supports of new and improved construction. For description, see p. 209.

The desks in the Brimmer School are more like the one represented in the accompanying section of desk and chair used in the Eliot Grammar School.



The cut below represents the bench used in the Primary School. The scholars are separated by a compartment, A, which serves as a rest for the arm, and place of deposit for books.



Since the foregoing style of chair and desk was introduced, much attention has been paid to the improvement of school furniture, with a view of securing convenience, durability, and economy, in the construction both of chairs and desks.

THE BOSTON LATIN HIGH SCHOOL DESK.

The above cut represents an end view of a new style of desk used in the Latin High School, in Bedford street, with a section of Wales' *Patent School Chair*. The standards of the desks are made of cast iron, and are braced in such a manner, that when properly secured to the floor, there is not the least motion. The curve in the standard facilitates the use of the broom in sweeping.

THE BOSTON PRIMARY SCHOOL CHAIR.

These Chairs were got up for the special benefit of the *Boston Primary Schools*, by JOSEPH W. INGRAHAM, Esq., Chairman of the Primary School Standing Committee; and have already been introduced, by order of the Primary School Board, into the greater portion of their Schools.



The first pattern, is a Chair with a *Shelf (s)* under the seat, for the purpose of holding the Books, Slates, &c. of the scholars.

The second pattern differs from the first, in having, instead of the *Shelf*, a *Rack (A)* on the back of the chair, for the same use as the *Shelf* in the preceding pattern. The third pattern is similar to the second, except that the *Rack (A)* is placed at the *side*, instead of the *back*, of the chair. The latter pattern (with the *Rack* on the side) is that now adopted in the Boston Schools.

These chairs are manufactured by William G. Shattuck, No. 80 *Commercial Street*, Boston. The price is fifty cents, each, for those with the *Shelf*, and ~~sixty~~ *sixty-five* cents for those with the *Rack*.

WALES' SCHOOL CHAIRS AND DESKS.

WALES' AMERICAN SCHOOL CHAIRS AND DESK.

The figures above represent the largest size of CHAIRS and DESK, as described in the series of sizes below, the height decreasing as there stated from size to size.

The CHAIRS represented in the above cut are based upon a single pedestal of iron, (instead of the usual legs of a chair;) the wood-work of the Chair is fastened securely upon the top of the pedestal, the middle piece passes directly from the top into the foot of the pedestal, and the whole is firmly screwed to the floor of the school-room.

The DESK above is intended for two scholars, being in form and style, both in wood and iron, of the latest pattern.

The supports of the Desk are of iron, so constructed as to be entirely out of the way of the scholar, and at the same time light in form, and perfectly strong and firm in their position. They are secured to the wood-work at the top, and screwed firmly to the floor of the school-room at the bottom.

The whole plan embraces CHAIRS and DESKS in SEVEN SIZES, as follows :

FIRST SIZE.	CHAIR 9 inches high, DESK, side next the scholar, 17 inches.
SECOND SIZE.	" 10½ " " " " " " " " 19 "
THIRD SIZE.	" 12 " " " " " " " " 21 "
FOURTH SIZE.	" 13 " " " " " " " " 23½ "
FIFTH SIZE.	" 14 " " " " " " " " 25 "
SIXTH SIZE.	" 15 " " " " " " " " 26½ "
SEVENTH SIZE.	" 16 " " " " " " " " 28 "

Thus combining a mode of furnishing public schools, for scholars of all ages, which, for comfort, durability, and ultimate economy, is believed to be unequalled. These Chairs have been very generally adopted in the Schools in Boston and the New England States. The Chairs or Desks, or any desired sizes of either, can be had separately.

WALES' BOWDOIN SCHOOL CHAIR AND DESK

The Chair above represented is finished with a very graceful scroll top and ornamental centre, the latter passing from the top through a dovetail in the seat, directly into the foot of the iron pedestal upon which it is based, thereby securing an unequalled degree of strength and durability, with comfort and beauty. The iron pedestals are secured firmly to the wood-work at the top, and are then screwed unmovably to the floor of the school-room.

The Desk is for a single scholar, but can be made of any length in the same fashion, accommodating any number of scholars which may be needful. It rests upon iron supports, of a new and improved construction, which secures great firmness and strength.

A comparison of this cut with that preceding, will show that while the ornamental in form has been introduced in the Bowdoin School Chair, the more important elements of strength, durability and comfort, which experience has accorded to the American School Chair, have not been omitted. One secures every attainable degree of strength and comfort, at the lowest price, while the other adds to all these a greater beauty of style, with the price increased in proportion.

The size in the drawing is of a Chair of 16 inches, with a Desk of 28 inches in height, being the largest of the series of seven sizes, which may be found on a preceding page, in the description of the American School Chair.

560 of these Chairs are in use in the Bowdoin School, and 672 in the Quincy School, in Boston.

The Desk is of a later pattern than those in either of the schools named. Chairs or Desks of this style, or any sizes of them, can be had separately, if desired.

It is now about ten years, since the manufacturer first invented and adopted the iron pedestal, as the base for School Chairs, and although the introduction of this new principle has been slow, it has, nevertheless, been sure and satisfactory.

The knowledge of this mode of setting up School Chairs and Desks on pedestals, or on fancy forms of iron, as illustrated by the accompanying cuts has been widely extended, and has met with the universal approbation of experience.

WALE'S HANCOCK SCHOOL CHAIR AND DESK.

The figures above represent the largest of a series of seven sizes, as described on a preceding page.

The Desk is for a single scholar, with a single chair. The supports, both of the Chairs and Desks, are of iron, secured firmly to the wood-work of the Chair or Desk at the top, and to the floor of the school-room at the bottom.

550 of these Chairs, with single Desks, are in the Hancock School, in Boston.

The Desk represented in the drawing is of a later, and, it is believed, a better pattern in several respects, than those in the Hancock School.

Chairs or Desks of this description are furnished separately, when desired.

The greatly increased demand for School Furniture of this description, and indeed for an improvement in School Furniture of all kinds, has induced the subscriber to establish a MANUFACTORY, where, under his own direction, all kinds of SCHOOL FURNITURE will be manufactured in the best manner.

EVERY ARTICLE from this establishment will be WARRANTED.

Before closing these notices, it is proper to observe that drawings rarely give the complete idea of the thing, either in style or proportion, especially when small objects are intended to be represented. At the Ware-room of the Manufacturer, samples of all the foregoing styles of Desks and Chairs are set up, as if in actual use; and all persons who feel interest or curiosity in such matters are invited to visit and examine them. It is only by such an investigation that the complete idea can be realized. Orders by mail or otherwise will be executed with the same promptness and fidelity as if presented in person.

S. WALE, JR., No. 14 Bromfield street, Boston.

The foregoing drawings and description of School Chairs and School Desks, manufactured by S. Wales, Jun., 14 Bromfield street, Boston, Mass., are copied from the circular of the manufacturer, by permission.

ROSS'S SCHOOL CHAIR AND DESK.

The above cut represents a new style of school chair and desk, manufactured by JOSEPH L. ROSS, corner of Ivers and Hopkins streets, Boston.

"The legs, or supports of the desk and seat, are of cast-iron, of classical design, conveniently shaped in reference to sweeping, and are firmly secured to the wood-work of the chair and desk, and to the floor.

The chairs are made of seven sizes, viz.: 9, 10, 12, 13, 14, 15, and 16 inches high from the floor to the upper surface of the seat; and the desks are manufactured to correspond to the size of the chairs."

These has been introduced into the new Public High School-house, Cambridge, and in Charlestown, and into several of the new Grammar School-houses in Boston, and have given entire satisfaction wherever they have been introduced.

Mr. Ross also manufactures tables and desks for the use of teachers, cases for apparatus, and for library, and other furniture for school-rooms."

Mr. Ross also manufactures a style of school desk, with seat attached, which has been introduced very extensively into village and country districts in Rhode Island, and is recommended wherever a rigid economy must be observed in furnishing a school-room. The end-piece, or supports, both of the desk and seat, are of cast-iron, and the wood-work is attached by screws. They are made of eight sizes, giving a seat from ten inches to seventeen, and a desk at the edge next to the scholar from seventeen to twenty-six inches from the floor.

PLAN AND DESCRIPTION OF BOWDOIN GRAMMAR SCHOOL-HOUSE.

The new Bowdoin School-house, completed in 1848, is situated on Myrtle street, and with the yard occupies an area of about 75 feet by 68 feet, bounded on each of the four sides by a street. It is built of brick with a basement story of hammered granite, and measures 75 feet 9 inches extreme length by 54 feet 6 inches extreme breadth—having three stories, the first and second being 13 feet, and the third, 15 feet high in the clear. The ground descends rapidly from Myrtle street, thereby securing a basement of 15 feet in the rear. One third of which is finished into entries, or occupied by three furnaces, coal bins, pumps, &c., and the remaining two thirds is open to the yard, thereby affording a covered play-ground for the pupils.

The third story is finished into one hall 72 feet long by 38 feet wide, with seats and desks for 180 pupils. On the south side of this hall there are two recitation rooms, each 16 feet by 12 feet, and a room for a library, &c. There are three rooms of the same size on the two floors below.

The second story is divided into two rooms by a partition wall, each of which is 35 feet by 38, and accommodates 90 pupils, and so connected by sliding doors that all the pupils of both schools can be brought under the eye and voice of the teacher.

The first story corresponds to the second, except there are no sliding doors in the partition, and no connection between the room except through the front entry. The two rooms on this floor have each seats and desks for 100 pupils.

Each story is thoroughly ventilated, and warmed by one of Chilson's Furnaces. In each furnace the air chambers, the apertures for conducting the cold air into them, and the flues for constructing the heated air into the rooms in each story, being all large, a great quantity of warm air is constantly rushing into the rooms, and the ventilating flues or ventiducts being so constructed and arranged that the air of the rooms will be frequently changed, and that a pure and healthy atmosphere will at all times be found in each of these rooms, provided the furnaces are properly and judiciously managed. On the top of the building there are two of Emerson's large ventilators, connected with the attic and ventilating flues, through which the impure air passes out into the atmosphere above.

To accommodate pupils who come to school with wet feet or clothes, there is an open fire in a grate in one of the recitation rooms.

Each room is furnished with Wales' American School Chair, and Ross's Desk, and both desk and chair are in material, form and style, as described on page 202 and 203.

This is a school for girls only, and consists of two departments, one of which is called the Grammar department, and the other the Writing department; the master of each department being independent of the other.

The number of assistant female teachers in each department of this school, when full, will be four, the teachers in each department being independent of the master and teacher in the other.

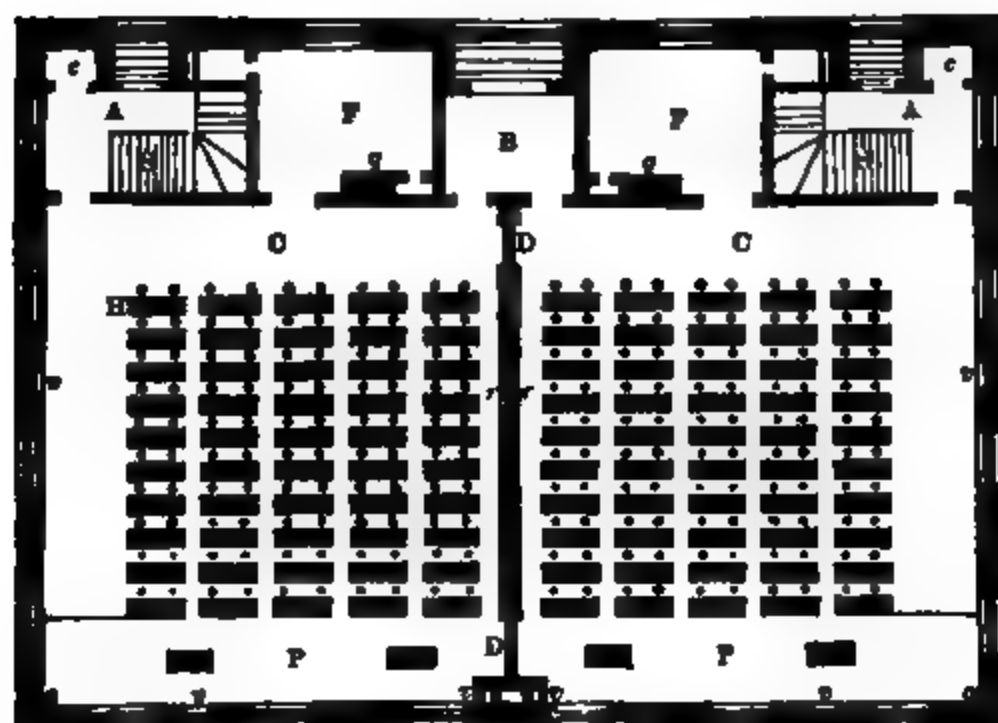
The master of the Grammar department and two of his assistants will occupy the large hall in the third story, and his other two assistants will occupy one of the rooms in the first story.

The master of the writing department and two of his assistants will occupy the rooms in the second story, and his other two assistants will occupy the other room in the first story, each master being the superintendence of his own department.

The school, when full, will be divided into five classes, and each class into two divisions, nearly equal in numbers. The first week after the vacation in August, the first division of each class will attend in the grammar department in the morning, and the second division of each class will attend in the writing department; and in the afternoon, the second division of each class will attend in the grammar department, and the first, in the writing department. The next week, this order of attendance is to be reversed, and this alteration is to continue through the year, the weeks of vacation not being counted.

This house and the Quincy Grammar School-house are built after designs by Mr. Bryant.

PLAN OF FIRST AND SECOND FLOOR.



A, A, Entrance for Pupils.

B, Ditto for Teacher.

C, C, Study halls, each 35 by 38 feet; with seats and desks for 100 pupils.

D, Sliding door, by which the two rooms on the second floor are thrown into one.

E, Study hall, 72 feet by 38.

F, F, Two recitation rooms on each floor, 16 feet by 12.

G, Room 10 feet by 12, for library, apparatus, &c.

H, Ross' desk, and Wales' chair.

P, Teacher's platform with desk for teacher and assistants.

S, S, Staircase leading to second and third floors.

a, Case with glass doors for apparatus.

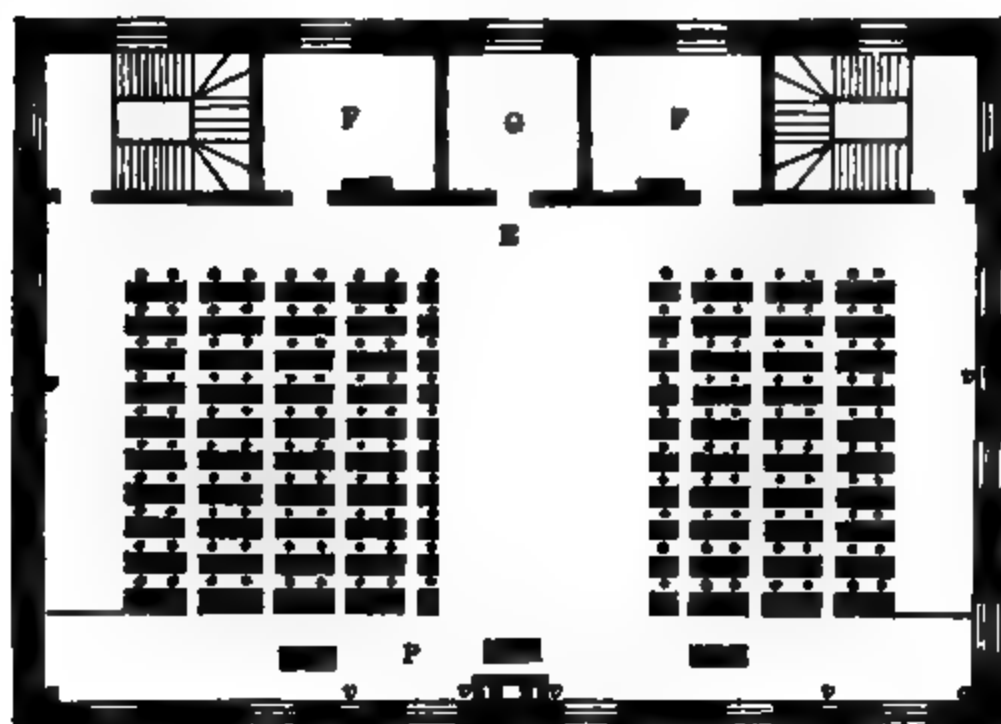
c, Closet for Teacher.

g, Grate.

r, Hot air register.

v, Flues for ventilation.

PLAN OF THIRD FLOOR.



PLAN AND DESCRIPTION OF QUINCY GRAMMAR SCHOOL-HOUSE, BOSTON.

This building, which was commenced in 1847, and dedicated on the 26th of June, 1848, is situated on a lot 90 feet by 130 feet, extending from Tyler street to Hudson street.

The ground plan is in the form of a cross, the exterior dimensions of the body being 80 feet by 58 feet, the end fronting on Tyler street. The wings are 12 feet in front by 36 feet deep. It is four stories high, with a basement 8 feet in the clear, for the furnaces and fuel, and an attic for gymnastic exercises.

Each wing contains a front and back entrance, a flight of stairs from the basement to the attic, and a room on each floor 10 feet by 11 feet, connected with a school-room.

The fourth story of the body is finished in one spacious hall, 16 feet high in the clear, with centre-pieces and a cornice, and a platform at each end 22 feet by 11 feet, and 22 inches high. It is furnished with settees arranged in 4 rows, sufficient to accommodate 700 children.

The third floor is divided by a corridor 8 feet wide, extending across the main body from one wing to the other, having 2 school-rooms on each side.

These four school-rooms are of nearly the same size, averaging about 31½ feet by 26½ feet, and 13 feet high. Each room is lighted by 2 windows at the side, and 2 at the end, and has a platform for the teacher 24 feet by about 5½, with one end towards the entrance from the corridor, and on the other end is placed a book-case of cherry, 3½ feet by 8 feet, with glazed doors, facing the entrance.

The scholars' desks front the platform and the windows on the side of the building, and are separated by aisles 1 foot and 4 inches wide. They are 2 feet in length, made of cherry-wood, and varnished and supported by cast iron stands. J. L. Ross, maker. Each scholar has a desk by himself.

The chair is made by Mr. Wales, of Boston. It has a scroll back and cast iron support.

Each room accommodates 56 pupils, one desk and chair being placed on a small movable platform for a monitor.

The rooms are lined with composition blackboards 3½ feet wide, 2 feet from the floor.

The school-rooms which have not small rooms attached, are provided with closets for the children's clothes. There are 2 sinks in the corridor, with conveniences for introducing Cochituate water. The description of this story will answer for the two below it, as the first three are essentially the same.

The windows are furnished with inside blinds, having revolving slats, so that the light may be regulated with great ease.

The building is warmed by 4 furnaces placed in the basement, 2 being placed at the middle of each end, each being intended to warm the three rooms immediately over it, the cast iron chimnies being relied upon for heating the hall.

Emerson's system of ventilation has been introduced since the building was finished, each room having a separate air-duct to the roof, 14 inches by 14 inches.

The apparatus consists of the Boston Philosophical set, by J. M. Wightman, Eayrs and Fairbanks' globe, 2 sets of Pelton's Outline Maps, and one of Mitchell's.

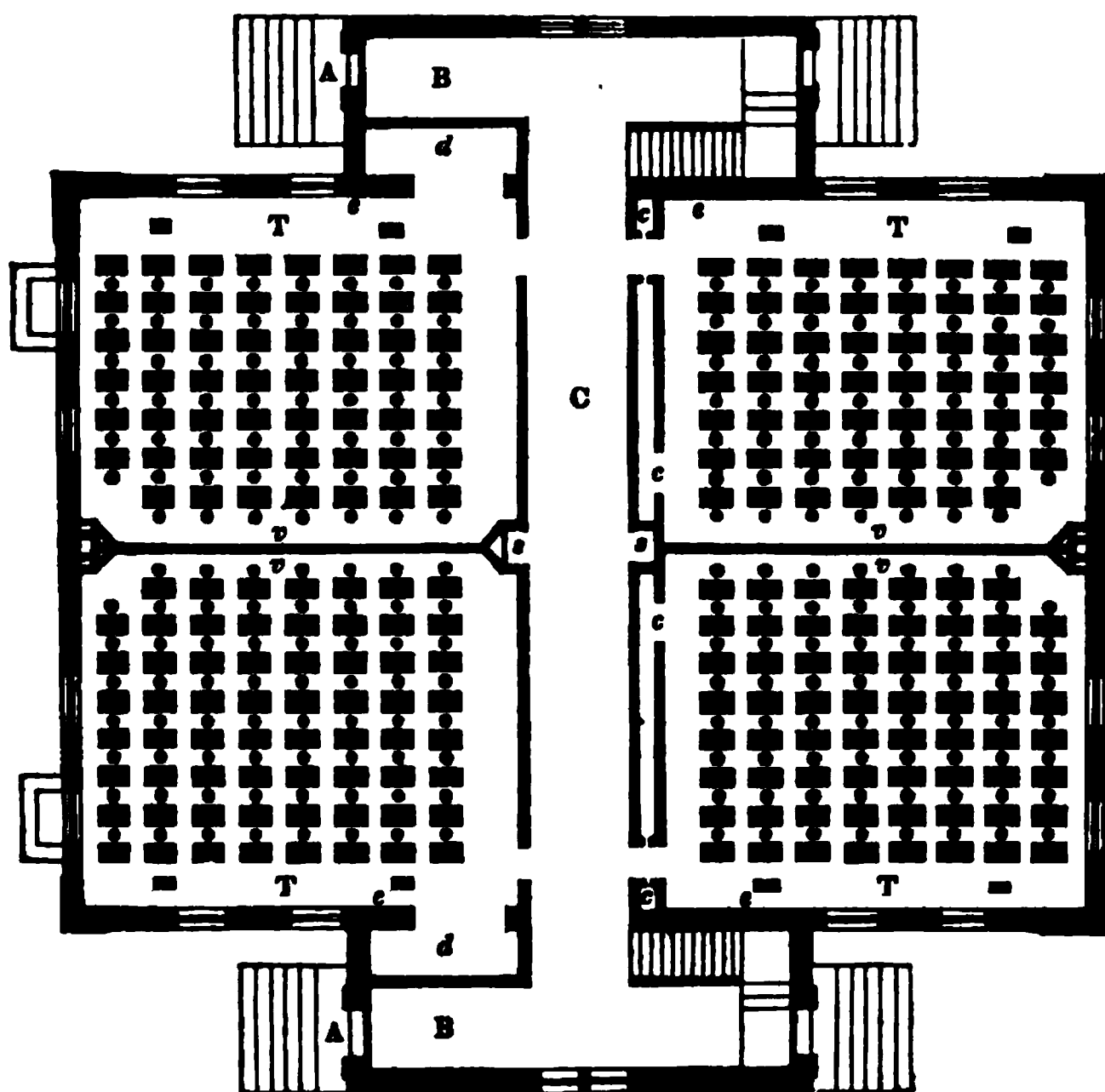
A library costing \$200 has been furnished by the donation of Mayor Quincy.

To protect the desks from injury, the slate-frames are all required to be covered with cloth, and each scholar is to provide himself with a convenient box to contain his pen, pen-wiper, pencils, rubber, &c. Each desk has an inkstand sunk into the right-hand corner, with a revolving metallic cover.

The building is calculated for but one school, and is at present occupied by but one, the organization of which is adapted to the arrangement and construction of the house. When the organization is complete, the school will be divided into 4 classes, each class containing 168 scholars, and each class into 3 divisions. At present the 3 lower classes contain two divisions each, and the first class 3.

On the 3rd floor are the first division of the first class under the instruction of

the Principal, and the several divisions of the 2d class instructed by assistants; On the 2d floor is the 2d division of the 1st class instructed by the sub-master, with the several divisions of the 3d class under assistants; and the usher takes the 3rd division of the 1st class, with the several divisions of the 4th class on the 1st floor. By this arrangement the government is rendered comparatively easy. The whole school is brought together in the hall for devotional services, and other general exercises.



Plan of First Floor.

A, A, Front Door.

B, B, Entries.

C, Corridor or Hall.

T, T, T, T, Teachers' Platform 24 feet by 5½.

r, r, r, r, Hot-air flues.

v, v, v, v, Preston's Ventilators for controlling the flues in the partition wall, which communicate with the iron smoke pipes near the top of the building. This plan is adopted in the first story only.

e, e, e, e, Indicates the location of the flues of Emerson's Ventilators in the second, third and fourth stories.

s, Sink.

c, c, c, c, Closets.

d, d, Closets 10 feet by 11 feet.

POTNAM FREE SCHOOL, NEWCLYFFPORT, MASS.

**PLANS AND DESCRIPTION OF THE PUTNAM FREE SCHOOL-HOUSE,
NEWBURYPORT, MASS.**

We are indebted to W. H. Wells, Esq., the gentleman who has been selected as Principal of the Putnam Free School, and to whom the work of organizing this important institution has been committed, for the following plans and description.

The Putnam Free School was founded by Mr. Oliver Putnam, a native of Newbury. It has a permanent fund of fifty thousand dollars, besides the amount invested in the school-house and its appurtenances.

The number of pupils to be admitted at the opening of the school (April, 1848,) is limited by the Trustees to 80. No pupil can be received under twelve years of age, nor for less time than one year.

The object of the Institution is to lead pupils through an extended course of English study. It is open to students from any portion of the country, who are prepared to meet the requirements for admission. No charge is made for tuition.

This building is situated on High street, directly opposite the Common or Mall. It is constructed of brick, with corners, door-sills, underpinning, steps, etc., of freestone. It is two stories in height, exclusive of a basement story, 85½ feet in length, and 52½ in breadth.

The upper story is divided into two principal school-rooms, each 49½ feet by 40½. There is also a small room in this story for the use of the Principal. The lower story contains a hall for lectures and other general exercises, and four recitation rooms. The hall is 44 feet by 48½. Two of the recitation rooms are 14 feet by 17, and two are 11 by 20.

Each of the principal school-rooms is furnished with 64 single seats and desks, besides recitation chairs, settees, etc. The desks are made of cherry; and both the desks and the chairs are supported by iron castings, screwed firmly to the floor. In form and construction, they are similar to Kimball's "Improved School Chairs and Desks."

The central aisles are two feet and eight inches in width; the side aisles, four feet and four inches; and the remaining aisles, two feet.

The building is warmed by two furnaces. It is ventilated by six flues from the hall on the lower floor, six from each of the school-rooms on the second floor, and one from each of the recitation rooms. Each of these flues has two registers; one near the floor, and the other near the ceiling. The two principal school-rooms are furnished with double windows.

The institution is provided with ample play-grounds and garden plots, back of the building and at the ends. It has also a bell weighing 340 lbs.

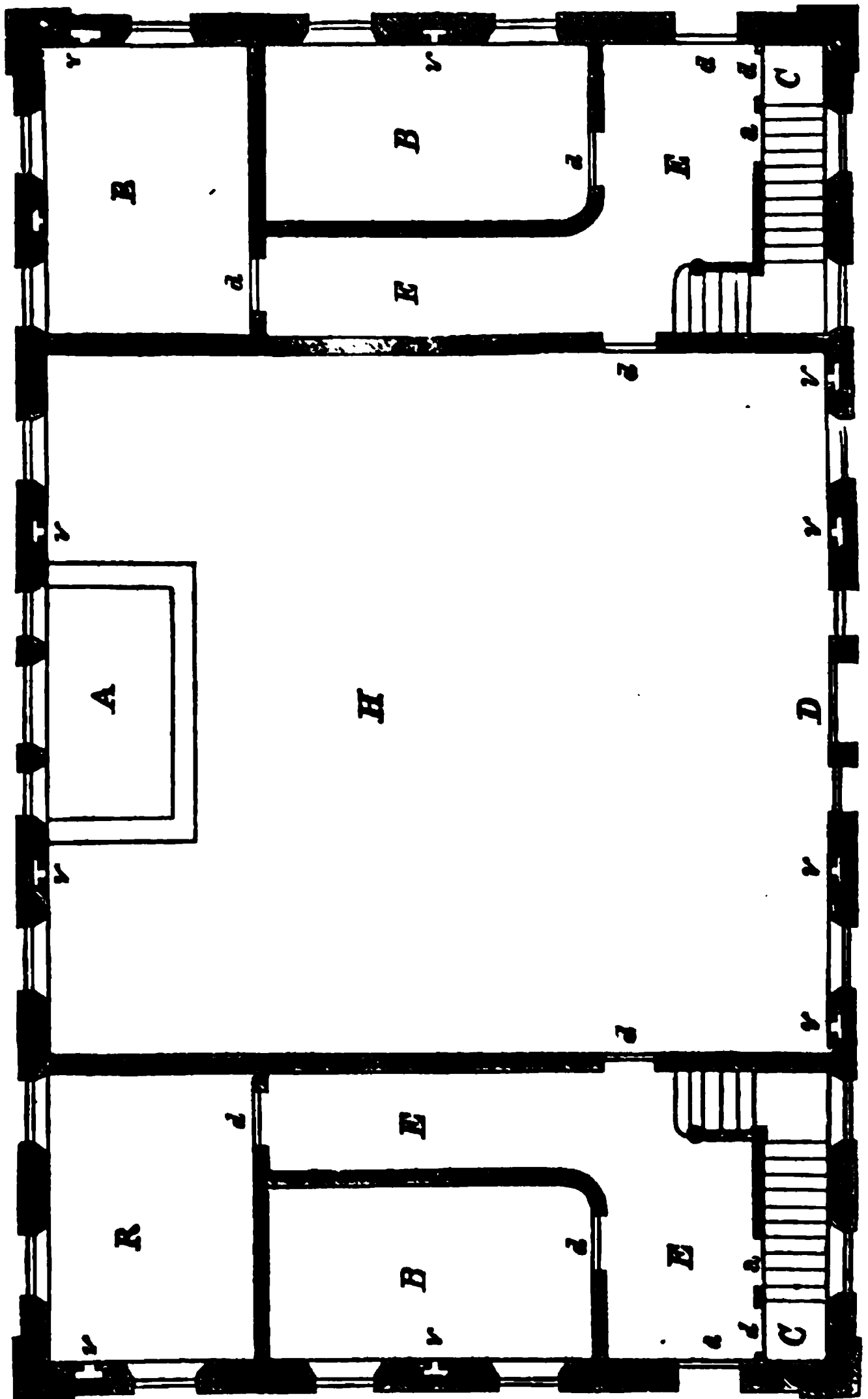
The first appropriation of the Trustees for the purchase of apparatus, is one thousand dollars. Other appropriations will probably be made, as the wants of the school may require. In addition to the apparatus procured by the Trustees, the institution is to have the use of an achromatic telescope, which will cost between three and four hundred dollars.

The cost of the building and ground, with the various appurtenances, exclusive of apparatus, has amounted to twenty-six thousand dollars.

The accompanying plans give a correct representation of the arrangements on the two principal floors.

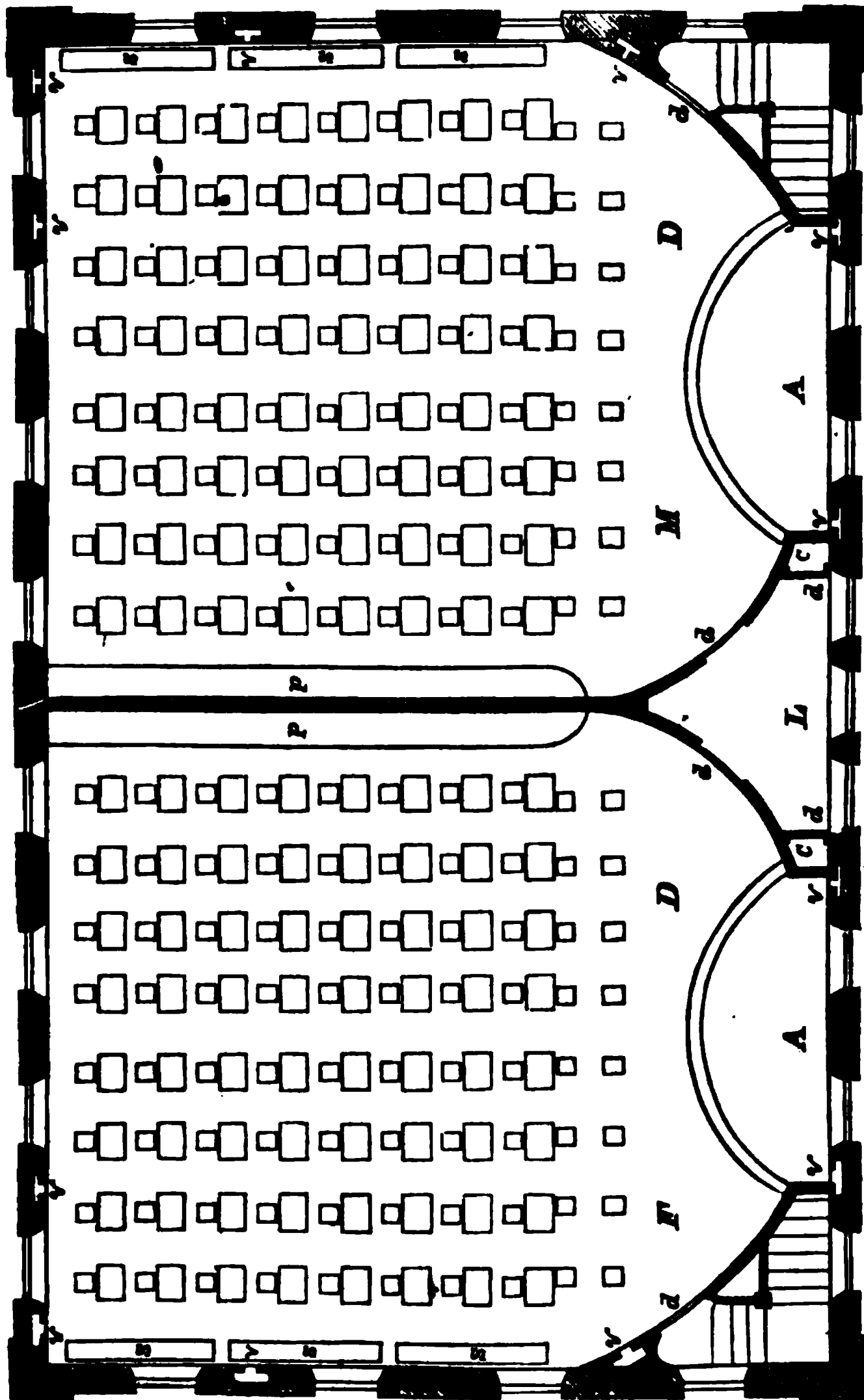
The building was erected after designs and specifications by Mr. Bryant, Architect, Boston.

PUTNAM FREE SCHOOL-HOUSE.—LOWER STORY



H—Hall for lectures and other general exercises, 44 feet by 48½. A—Raised platform for desk. D—Front door. (The portico in front does not appear in the plate.) B, B—Recitation rooms, 11 feet by 20. R, R—Recitation rooms, 14 feet by 17. E, E, E, E—Entries. C, C—Wash closets, under the stairs. a, a—Doors leading to the basement story. d, d, d, d, d, d, d, d, d, d—Doors. v, v, v, v, v, v, v, v, v, v.—Ventilating flues.

PUTNAM FREE SCHOOL-HOUSE.—UPPER STORY.



M, D—Room for Male Department. F, D—Room for Female Department.
 A, A—Raised platforms for teachers' desks. L—Principal's room. C, C—
 Closets. p, p—Raised platforms under the black-boards. s, s, s, s, s, s—Settees
 d, d, d, d, d, d—Doors. v, v, v, v, v, v, v, v, v, v, v, v—Ventilating flues

PLANS AND DESCRIPTION OF THE PUBLIC HIGH SCHOOL-HOUSE,
HARTFORD, CONN.

The Public High School-House of Hartford was built after more than ordinary search for the best plan, (a committee having visited Boston, Lowell, Salem, Newburyport, Worcester, Providence, and Middletown, for this purpose,) under the constant oversight of a prudent, practical and intelligent building committee, and with due regard to a wise economy. The committee were limited in their expenditure for lot, building, and fixtures, to \$12,000; and when it was ascertained that a suitable building could not be constructed for that sum, individuals on the committee immediately contributed \$2,400 out of their own pockets to complete the house with the latest improvements. The committee have now the satisfaction of knowing that their contributions and personal oversight have been mainly instrumental in erecting and furnishing the most complete structure of the kind in New England, when the aggregate cost is taken into consideration.

The High School is designed for both males and females, and the arrangements of the buildings, and the grounds, are made with reference to the separation of the sexes, so far as this is desirable in the same school.

The lot on which the building stands is at the corner of Asylum and Ann streets, and is at once central, and large enough for the appropriate yards. The yards are separated by a close and substantial board fence, and the grounds are well laid out and properly inclosed; they will also soon be planted with trees and shrubbery. The building is of brick, three stories high, upon a firm stone basement. Its dimensions are 50 by 75 feet. The basement is 13 feet in the clear, six feet of which are above the level of the yard. This part of the building is occupied by furnaces, coal bins, sinks, pumps, entrance rooms, &c. At one end, and on two opposite sides of the building, a stair case eleven feet in width extends from each of the two entrance rooms, to the upper story, with spacious landings on the first and second floors. Two rooms, each 11 by 14 feet, are between the stair cases, the one on the first floor being used for a front entry to the building, and the one on the second floor being appropriated to the Library and Apparatus. Two closets, eleven by four feet on the first floor, and immediately beneath the stair cases, receive the outer garments, umbrellas, &c., of the teachers.

An aisle of four feet four inches in width extends between the desks and outer walls of the rooms, and between every two ranges of desks is an aisle of two feet four inches in width. An aisle of eight feet in width passes through the middle of the rooms, parallel to the narrower passages. A space of five feet in width is likewise reserved between the remote seats in the ranges and the partition wall of the rooms. Around the sides of the rooms, tastefully constructed settees are placed for occasional recitations, and for the accommodation of visitors, and in the upper room for the use of the pupils of the room below, during the opening and closing exercises of the school.

The pupils, when seated, face the teachers' desks and platforms, which occupy the space between the entrance doors of each room.

A blackboard, or black plaster surface, forty feet long, and five broad, extends between the doors leading to the recitation rooms, which are also lined with a continuous blackboard. There is also a blackboard extending the entire length of the teachers' platform in the lower room, and two of smaller dimensions in the room above, a part of the space being occupied by the folding doors leading to the library and apparatus room. Twenty chairs, of small dimensions and sixteen inches in height, are placed around each recitation room, thirteen inches apart and seven inches from the walls, and securely fastened to the floor. A clock, with a circular gilt frame and eighteen-inch dial plate, is

placed over the teachers' platform in each school room, in full view of the pupils. A small bell is also placed above the teachers' platform in the lower room, with a wire attached, passing to the desk of the Principal, in the room above, by which the time of recesses, change of recitation classes, &c., are signified to the members of the lower rooms.

The school-rooms in the first and second stories are 50 feet square, and 13 feet in height—to each of which, two recitation rooms 12 by 23 feet are attached. The large rooms are furnished with "Kimball's improved School Chairs and Desks," placed in six ranges, extending back from the teachers' platforms, ten desks forming a range, and two chairs attached to each desk, furnishing accommodations in each room for 120 pupils—60 of either sex. Ample room yet remains in front of these ranges to increase the number of desks when the wants of the school demand them. The desks are four feet in length and one foot four inches in breadth, constructed of cherry, oiled and varnished. The moderately inclined tops are *fixed* to the end supporters, and the openings for books are in front of the pupils. Glass inkstands are inserted in the tops of the desks, and the ink protected from dust and the action of the atmosphere by mahogany covers turning on pivots. The chairs are constructed with seats of basswood, hollowed, and backs of cherry, moulded both to add beauty to the form of the chair, and to afford support and comfort to the occupants. All are neatly stained and varnished, and they, as well as the desks, rest on iron supporters, firmly screwed to the floor.

The entire upper story is converted into a hall, being twelve feet in height at the walls, rising thence in an arch to the height of seventeen feet. This is appropriated to reading, and declamation, and for the female department of the school, to daily recess, and calisthenic exercises. A moderately raised platform is located at one end, above which an extended blackboard is placed, and settees are ranged around the walls; these, properly arranged, together with the settees from the lower rooms, which are easily transported above, speedily convert the open *Hall* into a commodious Lecture room,—and also adapt it to the purposes of public examinations and exhibitions.

In each of the two entrance rooms are placed the means of cleanliness and comfort,—a pump of the most approved construction, an ample sink, two wash basins with towels, glass drinking tumblers, and a looking-glass. Ranges of hooks for hats, coats, bonnets, cloaks, &c., extend around the rooms, and are numbered to correspond with the number of pupils, of each sex, which the capacity of the house will accommodate. In the girls' room, pairs of small iron hooks are placed directly beneath the bonnet hooks, and twelve inches from the floor, for holding the over-shoes. In the boys' room, boot-jacks are provided to facilitate the exchange of boots for slippers when they enter the building—an important article, and of which no one in this department of the school is destitute. A thin plank, moderately inclined by hollowing the upper side, is placed upon the floor, and extends around the walls of the room, to receive the boots and convey the melted ice and snow from them, by a pipe, beneath the floor. A large umbrella stand is furnished in each of the two entrance rooms, also with pipes for conveying away the water. Stools are secured to the floors for convenience in exchanging boots, shoes, &c. Directly under the stairs is an *OMNIBUS GATHERUM*—an appropriate vessel, in which are carefully deposited shreds of paper, and whatever comes under the denomination of *litter*, subject, of course, to frequent removal. These rooms, in common with the others, are carefully warmed. The wainscoting of the entrance rooms, and the stair case, is formed of narrow boards, grooved and tongued, placed perpendicularly, and crowned with a simple moulding. The railing of the stair case is of black walnut. A paneled wainscoting reaching from the floor to the base of the windows, extends around the walls of the remaining rooms. All the wood work, including the library and apparatus cases, is neatly painted, oak-grained, and varnished. The teachers' tables are made of cherry, eight feet in length, and two feet four inches in breadth, with three drawers in each, and are supported on eight legs. A movable writing desk of the same material is placed on each. Immediately in front of the teachers' desk in the upper room, a piano is to be placed, for use during the opening and closing exercises of the school, and for the use of the young ladies during the recesses. Venetian window blinds with rolling slats, are placed inside the windows, and being of a slight buff color, they modify the light without imparting a sombre hue to the room.

The building is warmed throughout by two of Hanks' Improved Air Heaters, placed in the basement.

The ventilation of the school-rooms, or the rapid discharge of the air which has become impure by respiration, is most thoroughly secured in connection with a constant influx of pure warm air from the furnaces, by discharging ventiducts or flues, situated on each side of the building at the part of the rooms most distant from the registers of the furnaces. The ventiducts of each room are eighteen inches in diameter, and are carried from the floor entirely separate to the Stationary Top, or Ejector above the roof. The openings into the ventiducts, both at the top and bottom of the room, are two feet square, and are governed by a sliding door or blind.

A flight of stone steps leads to the front and main entrance of the building. The architectural entrance is of simple design, fourteen feet in width, and twenty feet in height. All the parts are wrought from dark colored stone, and on the crowning stone of the entablature, PUBLIC HIGH SCHOOL, appears in plain and prominent relief. Large folding doors, with side and top lights, close the entrance.

A side knob commands a bell suspended in the Library Room, directly behind the Principal.

A broad stone walk reaches from the steps to the street; flagging walks also extend from the street to the side entrances of the building, and thence to the outbuildings.

The Library contains an Encyclopedia, the most approved Dictionaries, both Classical and English, and other important books of reference for the use of the School, together with selected works for the direct professional reading of the teachers.

Several educational and scientific periodicals are furnished to the School, and which at the end of each year will form additional volumes for the Library.

Pelton's and Olney's, together with Mitchell's new series of outline maps, published by J. H. Mather & Co., of Hartford, Ct., and a fourteen-inch terrestrial globe, aid in the department of General Geography.

Mattison's series of sixteen astronomical maps; a fourteen-inch celestial globe; Vale's improved twenty-four-inch celestial globe and transparent sphere; a magic lantern, with sets of slides, containing thirty accurate telescopic and astronomical views; a reflecting telescope of five feet focal distance, with magnifying power of 700, and Chamberlin's best Tellurium, aid in the department of Astronomy.

Historical maps, charts, &c., an Isothermal chart, and set of large drawings to illustrate the anatomical structure, and the physiological functions of the system, will be procured.

The following apparatus has already been procured to aid in illustrating and demonstrating in the studies named:

MECHANICS.—Set of mechanical powers, arranged in a mahogany frame, comprising three levers, each sixteen inches long. Five sets of brass pulleys strung with cord and properly balanced. Brass weights from one to sixteen ounces. Screw and lever with nut. Screw as an inclined plane. Ship capstan. Wheel and axle. Wedge in two parts. Inclined plane, with carriage. Movable fulcrum and lever, for combining the power of screw and lever. Machine for illustrating the centrifugal and centripetal forces—thirteen experiments.

PNEUMATICS.—Air Pump—frame made of rose-wood beautifully polished—barrel twelve by four inches inside; large plate, stop-cock, and barometer in vacuo, and worked with a polished steel lever four feet in length, \$85.00. Large swelled, open-top bell glass. Several plain bell glasses of smaller dimensions. Bell glass with brass cap to receive stop-cock. Connector, sliding rod, &c. Revolving jet in vacuo. Bursting squares and wire guard for same. Condensing chamber and condensing gauge. Artificial fountain, with exterior and interior jets. Sheet rubber bag in vacuo, illustrating the rarefaction of confined air by removing the pressure of the external. Mercury tunnel to exhibit the mercurial shower, porosity of wood, pressure of the air, and also the luminous shower. Guinea and feather tube. Philosophical water hammer.

Apparatus illustrating the absurdity of suction, or the necessity of atmospheric pressure to the operation of the lifting pump. Torricellian barometer improved. Bell in vacuo. Apparatus illustrating the buoyancy of air, gas, &c. Weighing air and specific gravity apparatus. Freezing apparatus with thermometer. Condensing syringe. Cylindrical open-top bell glasses, three sizes. Hand and bladder glass, to illustrate atmospheric pressure. Bladder cap, with cap and stop-cock. Double acting exhauster and condenser. Brass hemispherical caps with handles, stop-cock and stand. Apparatus to illustrate the upward pressure of the atmosphere. Connecting screws, guard screws, sliding rod, with packing screws and binding screws. Flexible hose and screw connectors. Hydrogen bottle. Lead hose for conducting gases. Floating bulbs for condensation. Sheet rubber and sheet rubber bags. Glass bells and stems for freezing apparatus. Pair magnetic swans. Detonating glass tubes. Wire gauze, to illustrate Davy's safety lamp.

HYDROSTATICS.—Hydrostatic bellows, with glass and brass tubes, glass tunnels, weights, &c. Pair of working models of the forcing and lifting pump. Graduated glass jars for cubic inches.

ELECTRICITY.—Electrical machine, 24 inch plate, \$50.00. Leyden jar of four quarts. Do. do. for suspension with movable rings and points. Do. do. with sliding discharger. Electrometer jar, by which the charge may be measured, &c. Electric batteries with six four-quart jars. Sliding, directing rod. Spiral spotted tube. Jointed discharger, glass handle. Universal discharger. Insulating stand. Electric bells. Wax cylinder. Thunder house with fixtures. Gas pistol. Gas generator and platina igniter, four quarts. Long haired man. Electric float wheel and point. Abbe Noloes' globe. Luminous bell glass. Electric S. Aurora flask. Electric seasons machine. Elastic rubber ball. Ether spoon. Chamberlin's cylindrical gasometers, for oxygen and hydrogen, united, forming a compound blow pipe, \$60.00. Iron retort for oxygen gas. Metallic reflectors with stand, iron ball and stands and a thermometer. Glass spirit lamp. Spirit boiler to use with reflectors. Dropping tube. Glass tunnels. Graduated glass hydrometer. Flask with screw-cap admitting thermometer. Platina and copper pendant spoons. Brass pipe for blowing gas bubbles. Hydrogen gas generator, with platina sponge for lighting a long detonating jet. Lamp stand. Flexible hose for transferring and conducting gases. Scales and weights for chemical purposes. Pyrometer with two lamps and rods. Section model of the high pressure engine.

GALVANIC MAGNETIC AND ELECTRO MAGNETIC.—Davis's cylindric battery. Steel U magnet and armature. Magnetic needles and stands. Electro magnet. Electro coil and hemispheric magnets. Terrestrial helix. Primary coil and handles for shocks. Separable helices for analysis of shocks.

OPTICS.—Models of the human eye in three parts. *Fig. 1st.* A dissectible eye four inches in diameter, showing the cornea, iris, ciliary process, choroid tunic, crystalline lens, vitreous humor, retina, black pigment, optic nerve, &c. *Fig. 2d.* Showing the eye in its socket, with the muscles. *Fig. 3d.* The eye with rays of light passing from an object and forming the image on the retina. The object and the image movable, showing the cause of lens light, short sight, and perfect sight.

An oxy-hydrogen microscope will soon be added in this department.

With the above apparatus more than eight hundred experiments can be performed.

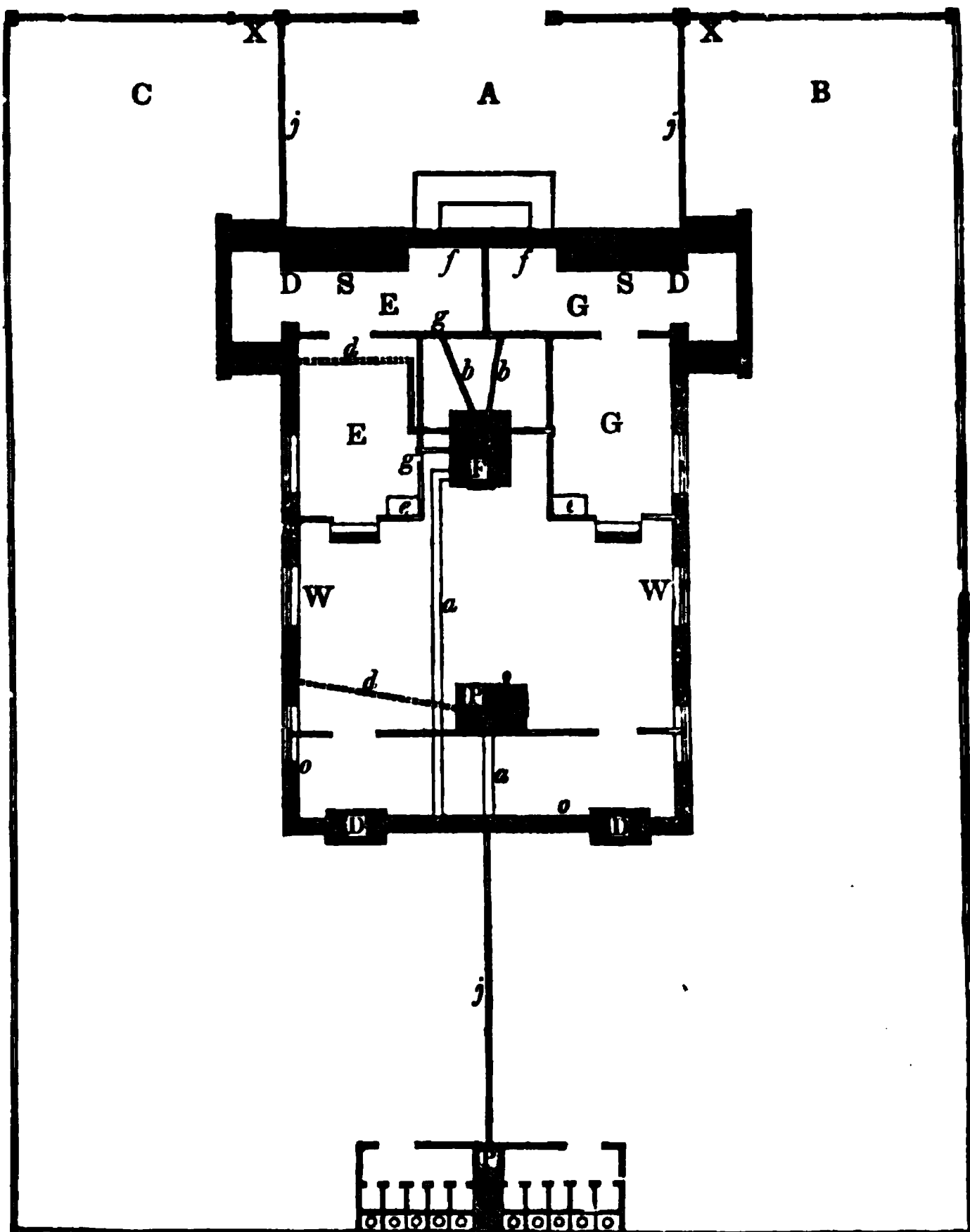
For the purpose of teaching practical surveying, and the elements of engineering, a Theodolite, of approved English manufacture, is provided. Cost \$200.

Other apparatus will from time to time be added, as the wants of the School may require.

Building Committee.—A. M. COLLINS, D. F. ROBINSON, T. BELKNAP, J. M. BUNCE, W. PEASE, JR., EDWARD BUTTON, E. D. TIFFANY.

FIG. 1.—PERSPECTIVE OF HIGH SCHOOL HOUSE HARTFORD CONN.

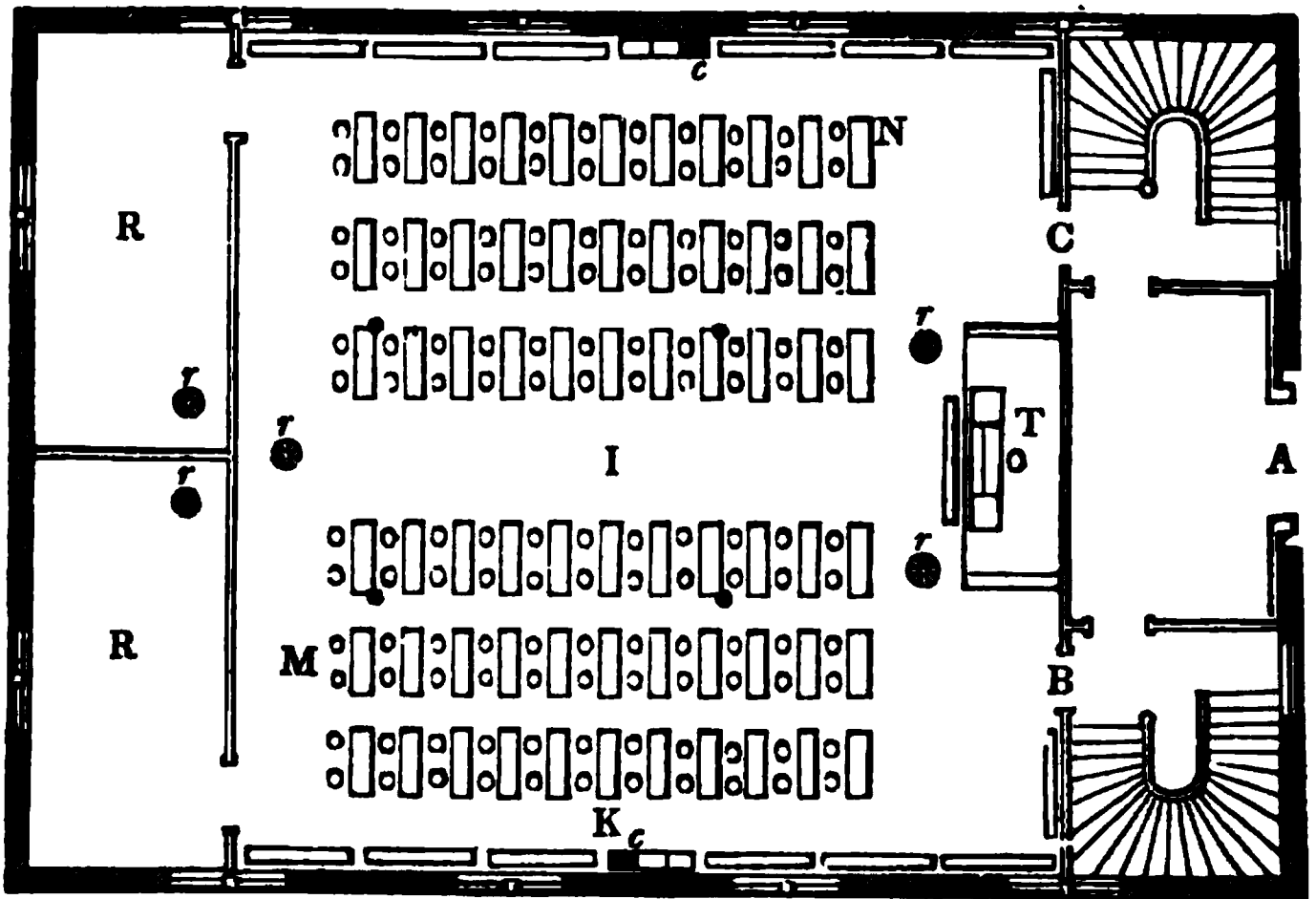
Fig. 2—GROUND PLAN, YARD, BASEMENT, &c.



A—Front yard.
 B—Girls' yard.
 C—Boys' yard.
 D—Door.
 E—Boys' entrance rooms.
 G—Girls' entrance rooms.
 F—Furnace.
 S—Stairs.
 W—Windows.
 P—Privies, with screen, doors, &c.
 X—Gates.

a—Cold air ducts.
 b—Warm air ducts.
 c—Foul air ducts or ventilating flues.
 d—Smoke pipe.
 e—Pump, sink.
 f—Umbrella stand.
 g—Hollowed plank to receive wet boots, overshoes, &c.
 o—Bins for hard coal, charcoal, &c.
 j—Close board fence.

Fig. 3—PLAN OF FIRST FLOOR.



- A—Front entrance.
 B—Girls' entrance.
 C—Boys' entrance.
 I—Centre aisle, eight feet.
 L—Aisle between each range of seats and desks, two feet four inches.
 K—Side aisle, four feet four inches.
 M—Space five feet wide.
 T—Teachers' platform and desk.
 R—Recitation rooms, each twenty-three feet by twelve, furnished with twenty chairs, seven inches from the wall and thirteen inches apart.
 Q—Library and apparatus, from eleven feet by fourteen feet.
 N—Kimball's desk and two chairs.
 O—Piano.
 r—Hot air registers.
 c—Ventilating flue or foul air duct. N—Settees.

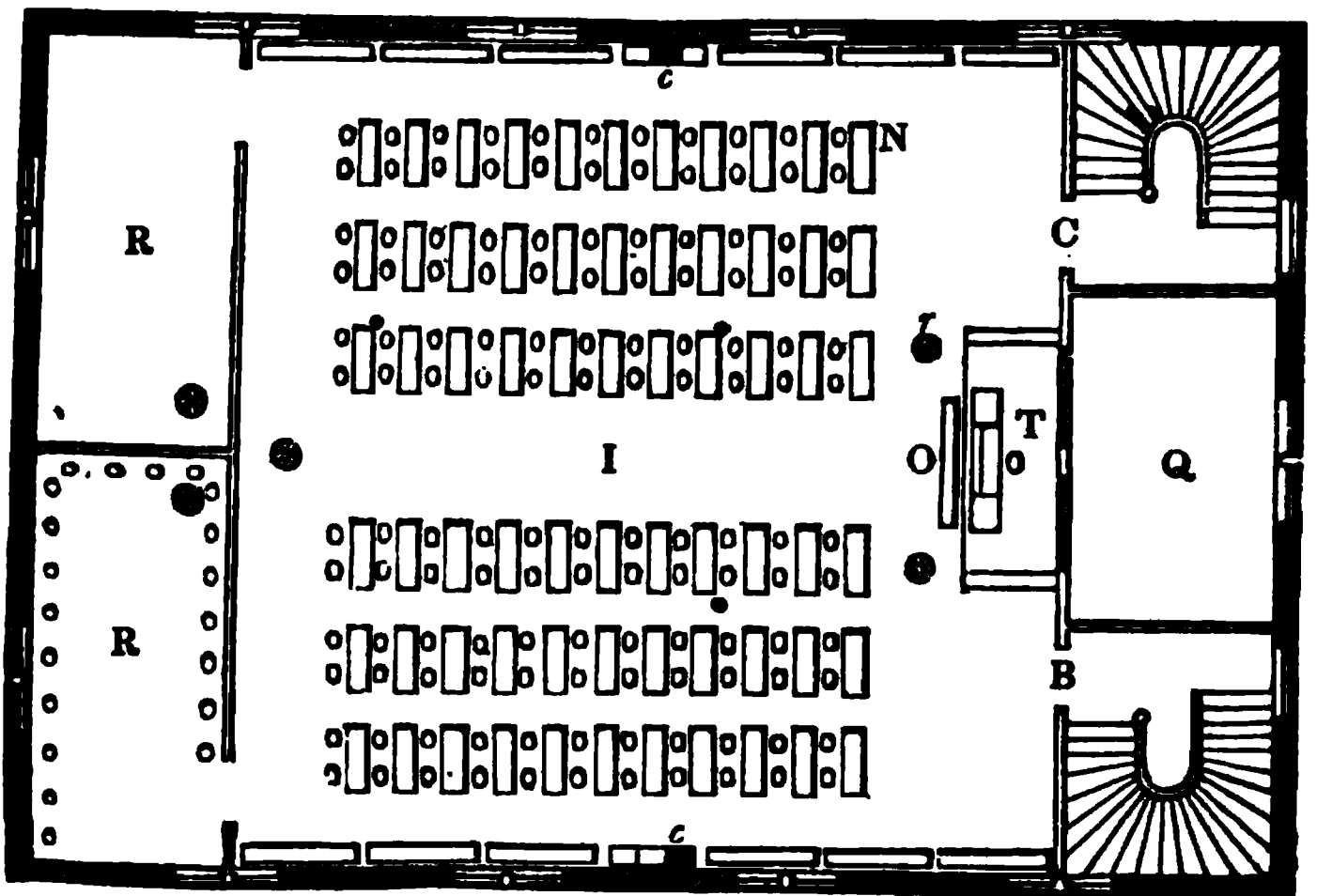


Fig. 4—PLAN OF SECOND FLOOR.

Figs. 5 and 6. PLANS EXHIBITING MODE OF VENTILATION.

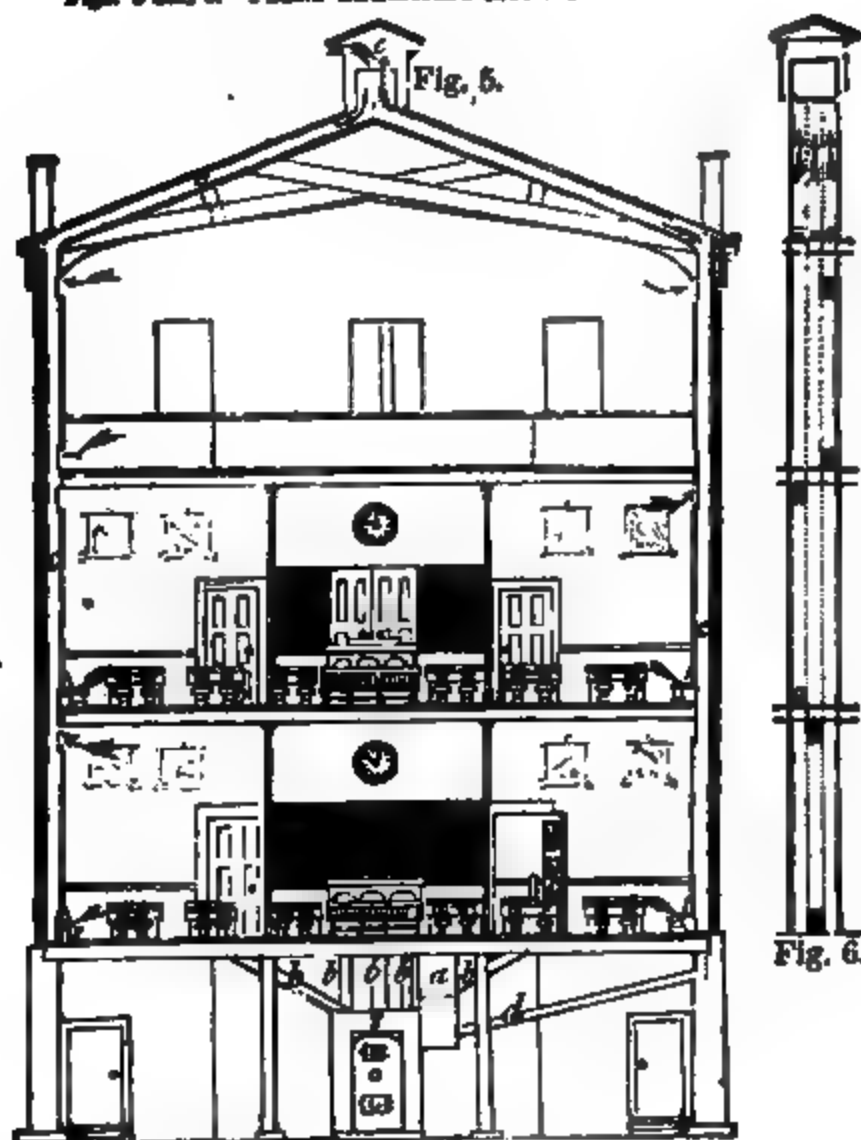


Fig. 5. Transverse section exhibiting the manner in which the ventiducts or hot air flues are carried up on the inside of the walls, under the roof, till they discharge into the Stationary Top or Ejector.

Fig. 6. Lateral section of the ventiducts or foul air flues, showing the manner in which the flues are packed together and carried up separately from the floor of each room until they discharge into the common Ejector. The cut does not represent properly the manner in which the flues are carried under and out of the roof.

Fig. 7. HANKS' IMPROVED AIR HEATER.

The following description and notice of Hanks' Furnace or Improved Air Heater, which has worked well in the High School, is taken from the Circular of the Patentee.

"The Air Heater is set in the cellar or basement surrounded by a double brick wall—each four inches thick and four inches apart, arched over the top, leaving a door in the rear, of sufficient size to take out the Heater—the door to be closed with two thicknesses of tin or sheet iron, three inches apart. At the bottom of the wall, directly under the pipes, also opposite the stove, introduce a supply of pure air from outside of the building—this coming in contact with the heated surfaces, rises rapidly and passes off into tin conductors leading from the arch over the Heater, to the apartments intended to be warmed.

The peculiar improvement and operation of this Apparatus is, that the heat, as its temperature is *reduced*, passes *down* into pipes of a still *lower* temperature, and at the *low s*, passes off into the chimney. The air to be warmed, is brought *first* in contact with the pipes and conductors of the *lowest* temperature, and as it becomes warm and rises, is brought in contact with, and rises among pipes of a temperature *continually* and *regularly increasing*, until at the *highest* it passes off into conductors leading to the rooms. Thus the *current* of heat is directly *con'trary* to the *current* of air passing into the apartments.

It will radiate more heat, with a given quantity of fuel, than any other apparatus now in use for the same purpose.

It is perfectly accessible at all times, and may be cleared of ashes and soot either when in operation or not, by simply opening the door of the Radiator.

All the coal it may contain can always be seen by looking in at the "feeding door;" thus it may at once be known if the *quantity* and *quality* of the coal is as it should be.

It is so constructed that the required quantity of heat can always be had and controlled, diminished or increased at pleasure, with a corresponding consumption of fuel."

Fig. 8. KIMBALL'S IMPROVED CHAIRS AND DESK.

PLAN AND DESCRIPTION OF THE FREE ACADEMY IN THE CITY OF NEW YORK.

The Free Academy is situated on the S. E. corner of Twenty-third street and Lexington avenue, in the upper part of the city, being convenient of access from all the great thoroughfares. The style of architecture, in which the building is erected, is the same as that of the town halls and colleges of the 14th century, in Europe. This style attained its greatest perfection in the Low Countries, and especially in Belgium, which at that period was the great seat of learning, science and the arts, as well as the great centre of the commercial enterprise of Europe. It was the opinion of the architect, therefore, apart from the economy in construction, of the Gothic style, when properly managed, that this style would be peculiarly appropriate for the High School of the city of New York, and was also well adapted to the materials of which it was proposed to construct the building, many of the old halls and colleges being built of brick. The architect, Mr. Renwick, of New York, in a letter to the President of the Board of Education, remarks,

"I am confident that the style I have adopted is, at the same time the strongest, the cheapest, and the one best adapted to the purposes of heat and ventilation, being the only one, except the Norman, in which chimneys and flues become ornamental, and a roof of high pitch, necessary for external beauty, and capable of being intersected by dormer windows, which latter will add to the beauty of the building and to the convenience of lighting and ventilating the great hall, in the roof.

"As you (the Board) have proposed, with perfect correctness, to make the great hall in the Gothic style, for it can be in no other order, placed in such a position immediately beneath the roof, and is capable of being made highly ornamental in such a place, I was of opinion that the exterior of the whole building should accord with it, as, if it were planned in any other style, it would appear inharmonious, and therefore produce an unpleasant effect on the mind by its incongruity. The height of the building, too, the great pitch of the roof, and the numerous chimneys and ventilating flues necessary to render the arrangement perfect, would entirely preclude the adoption of the Grecian, Roman, or modern Italian styles, with any good effect, apart from their being much more expensive, and less beautiful.

"I have entered at length into the reasons which guided me in the adoption of a style for the building, because it might at first sight appear expensive, and therefore improper for such an institution. You will at once perceive the great strength which the buttresses impart to the building, and the consequent reduction in the thickness of the walls. These buttresses will also serve for ventilating flues, which in such a building should be of large size, in order to prevent, as far as possible, any friction from interfering with the passage of the currents of air, an end which can only be attained by large and smooth flues."

The dimensions of the building are as follows: The length of the building, exclusive of all projections, is 125 feet, and the breadth 80 feet. The height, to the eaves, 65 feet, and to the top of the gable, 100 feet. The height of the towers, 110 feet.

The building is divided into a basement, three stories, and a great hall under the roof. The basement is nine feet in height, and is arched to afford ground for exercise in bad weather. In it, also, are the janitors' lodgings, the chemical laboratory, and the closets for the hats and clothes of the students. The first, second and third stories are divided into four great rooms by two wide, spacious halls, which are carried through the centre of the building longitudinally and transversely. Two of these rooms, on each floor, are again divided, affording smaller rooms for recitation, &c. Above these stories is the great hall, 125 feet long by 60 feet in breadth, divided by the king and queen posts of the roof, which are made ornamental, into three aisles, the centre one of which is 40 feet in height, and the two side aisles each 20 feet in height. The ceiling of this room is of wood immediately under the roof, of which it forms part, and it is ornamented with carved ribs of wood, in the manner of the old college halls at Oxford and Cambridge. It is lighted by windows at the ends and by dormers in the roof, and when finished, will probably be the largest and finest collegiate hall in this country.

The expense of the building, complete, without the furniture, will be 46,000 dollars.

The Free Academy of the city of New York was established by the Board of Education, in 1847, in pursuance of authority granted by the Legislature on the memorial of the Board, and on condition that the question of its establishment should be submitted to the people of the city, and a majority of the votes given should be in favor of the proposition. The question was so submitted on the first Monday of June, 1847, and 19,904 votes were given in favor of the same to 3,409 against. The act of the Legislature authorized the Board to erect a building at an expense of \$50,000, and to raise by tax annually for its support, the sum of \$20,000, exclusive of a proportion of the State Literature Fund, and any other means from other sources than those of taxation. Admission into the Academy is confined to those who have been pupils in the public schools of the city. The character and design of this institution may be gathered from the following extracts from the Memorial of the Board:—

"It cannot be denied that the unavoidable expense of a regular course of education at this time, is greater than can be borne by the heads of families in this city pursuing the various trades and occupations, whose business occupies the great mass of the people.

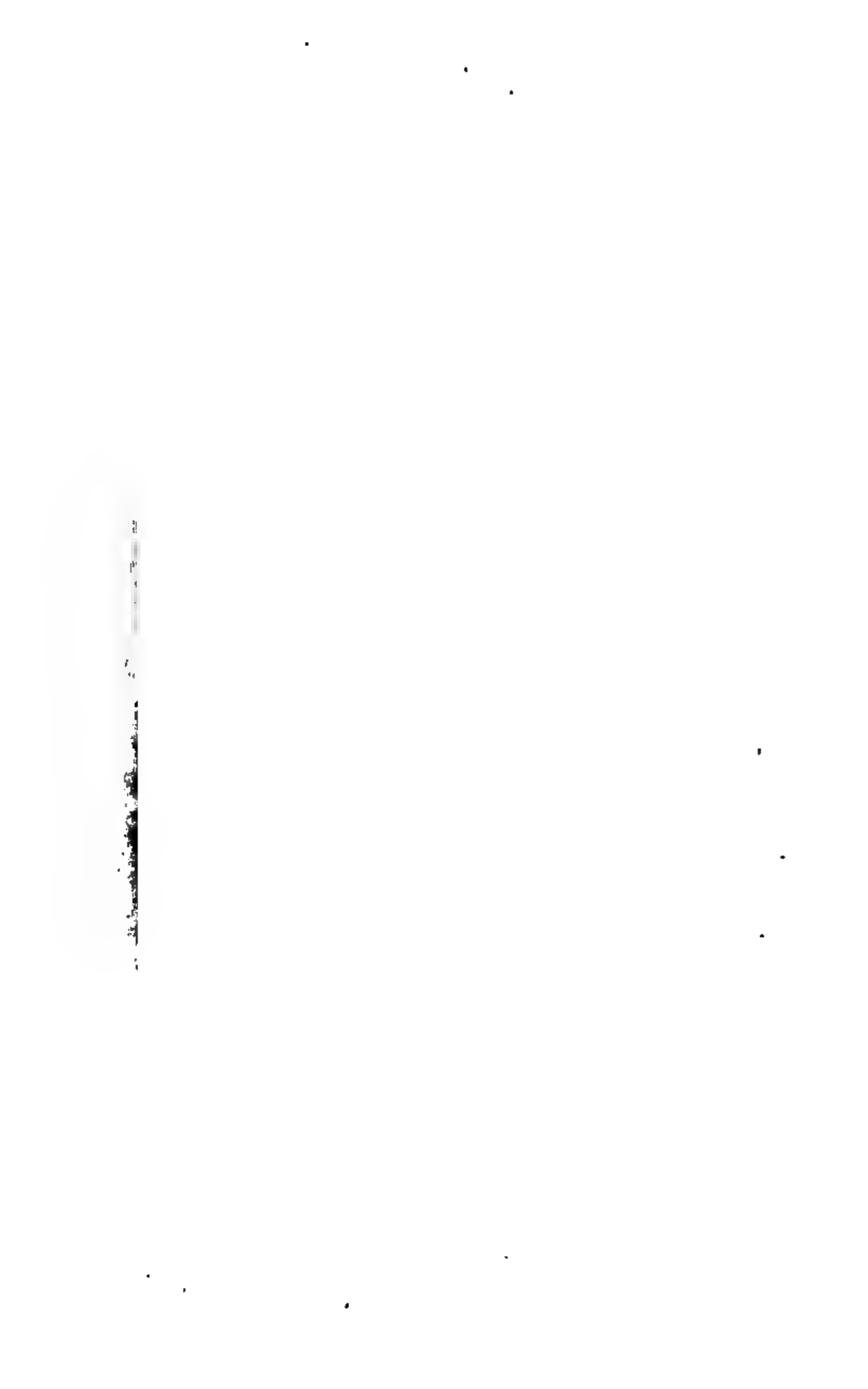
"If the number of highly educated men can, with a trivial addition to the public expense, be greatly multiplied; if these benefits can be rendered accessible to the great mass of young men who cannot now indulge the hope of enjoying them at all, if pecuniary inability to defray the present expenses of a collegiate education can cease to be a barrier to the acquisition of it, it is but reasonable to expect that in a brief period the number liberally educated in this city will be increased at least four-fold.

"One of the important objects designed to be secured by establishing a Free Academy, is to bring the advantages of the best education that any school in our country can give, within the reach of all the children of the city whose genius, capacity, and desire of attainment are such as to render it reasonably certain that they may be made, and by such means would become, eminently useful to society.

"The permanency of our free institutions, the future state of society, the extent to which the laws of the country will be regarded, and social quiet and order preserved, depend essentially upon the virtue and intelligence of the people.

"It is believed that a liberal education of the largest practicable number of the young men who may propose to seek the means of subsistence in agriculture, mechanical, or other productive occupations, would exercise a genial influence upon all the varied relations of social and political life: and that such an education would not tend to dissatisfy them with such pursuits.

"One object of the proposed Free Institution is, to create an additional interest in, and more completely popularize the Common Schools. It is believed that they will be regarded with additional favor, and attended with increased satisfaction, when the pupils and their parents feel that the children who have received their primary education in these schools, can be admitted to all the benefits and advantages furnished by the best endowed college in the state, without any expense whatever. It is believed that such an institution as the proposed Free Academy is designed to be, in addition to the great benefits it will confer by annually graduating a large number of highly educated young men, destined to pursue some of all the various pursuits of life, would stimulate tens of thousands, who might never enter this academy, to additional industry and greater advances while in the common schools. The certainty to a young man of good abilities, and desirous of making large acquisitions in knowledge, of having the opportunity of gaining as extensive an education as can be acquired in any institution in the State, if his parents can only furnish him the means to subsist at home, is in the highest degree cheering, while the certainty that the limited earnings of his parents will preclude him, in the existing state of things, from having any such advantages, tends to repress all such generous aspirations, paralyze effort, and prevent the full development of his ability to become extensively useful to the class in which his lot may be cast, or to society at large."



- A. Iron or brick ash-pit.
- B. Ash-pit door.
- C. Pot, or coal burner, with or without soap-stone lining.
- D. Fire chamber.
- E. Lower half of tubular drum.
- F. Elliptical tubes.
- G. Upper half of tubular drum.
- H. Top of tubular drum.
- I. Cap and smoke-pipe.
- K. Flat radiator.
- L. Water basin or evaporator.
- M. Smoke pipe to chimney.
- N. Conductors of hot air.
- N. Cold air conductor and chamber.
- P. Feed door.
- Q. Hot air chamber.
- R. Damper in globe with rod attached.
- S. Pendulum valve for cleaning.
- + Shows the direction of the currents of hot or cold air.

Fig. 2.—CULVER'S FURNACE.

The mode of warming and ventilating the several apartments of the Free Academy can be easily understood by consulting Figures 2, 3 and 4. Four of Culver's furnaces are set in the basement, as shown in Fig. 3. A large quantity of fresh air from out of doors, after being warmed by these furnaces, is carried up to the several stories by pipes in the division walls, (Fig. 2,) and is admitted into the rooms at a convenient point, as indicated in Figures 5 and 6. The air of each room, as it becomes vitiated by respiration, is discharged by openings near the ceiling into the buttresses, which are constructed hollow and finished smooth, so as to constitute large ventilating flues. Each opening is fitted with one of Culver's Ventilators or Registers, with cords attached, by which the capacity of the opening for the discharge of vitiated air can be enlarged and diminished at the pleasure of the teacher. The practical working of the furnaces and flues for ventilation, secures the object aimed at—a genial and pure atmosphere at all times.

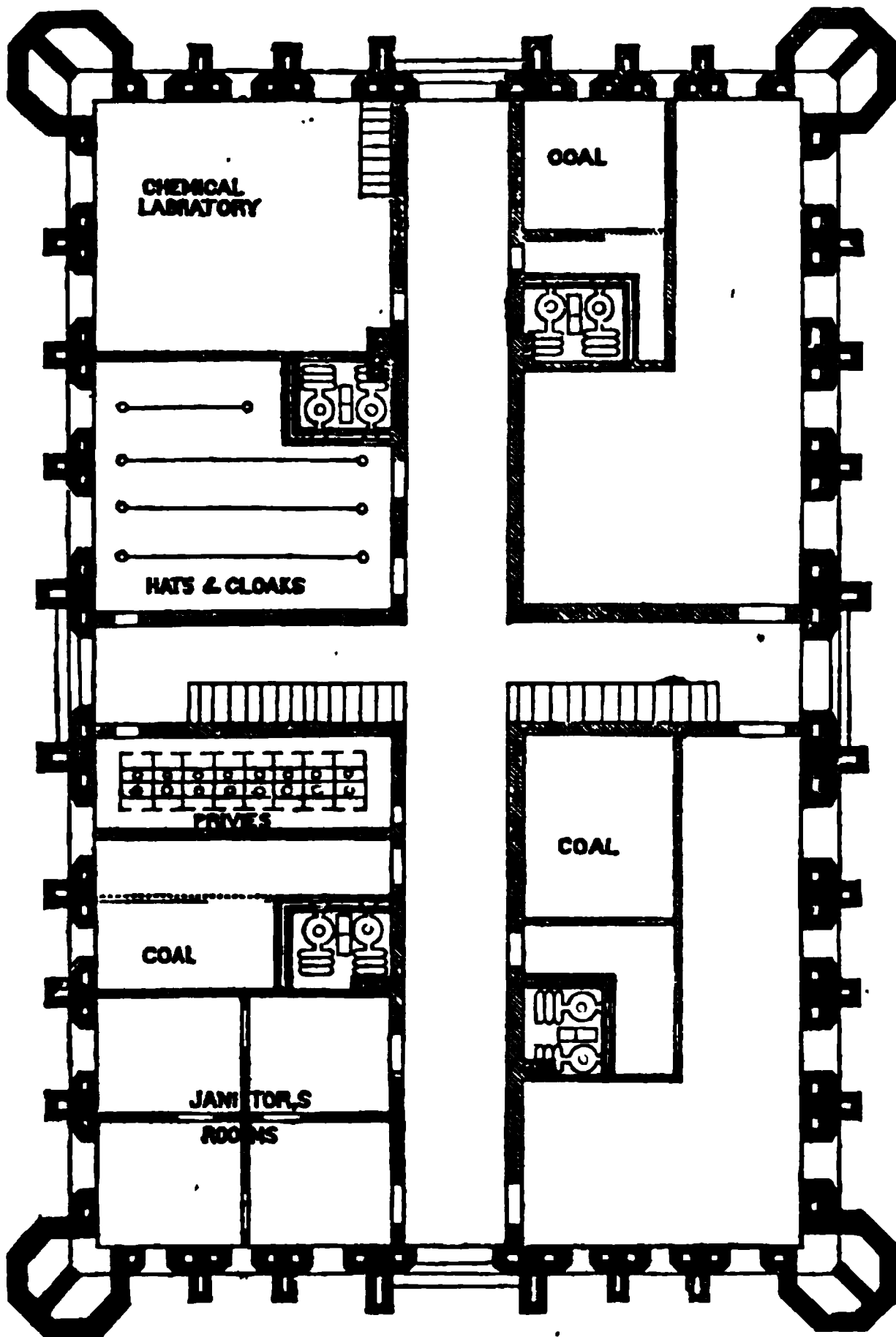


Fig. 3.—BASEMENT FLOOR.

The above cut gives an incorrect view of the exterior of the building, but a good idea of the internal arrangement of the basement story.

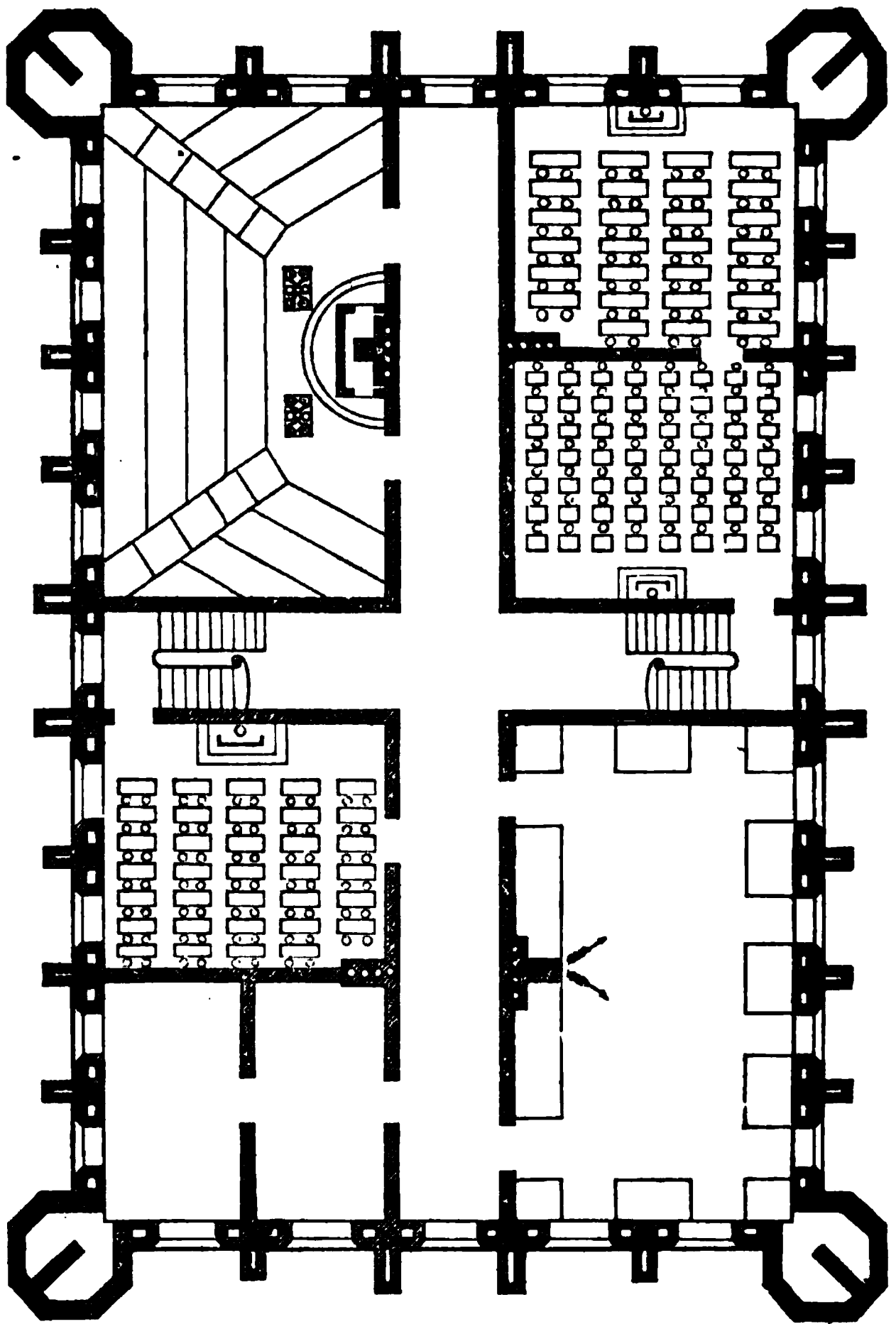


FIG 5.—PLAN OF FIRST STORY.

The author of this treatise has not been furnished with descriptions of this and the following plan, but a general idea of the arrangement of the room can be obtained from the cuts themselves, and from the description on page 232. The building contains more accommodations than any similar structure in any of our large cities, according to the cost.

Fig. 6.—PLAN OF SECOND STORY.

APPARATUS FOR WARMING.

THE thorough ventilation, the constant and regular change of the atmosphere of a school-room cannot be secured by simply providing flues or openings, however judiciously constructed and placed, for the escape of the air which has become impure from the process of breathing or other causes. These flues will not work satisfactorily, unless a mode of warming the room is adopted by which a large supply of pure fresh air, properly heated, is flowing in to supply the place of that which is escaping by means of the flues. Among the various modes of warming school-rooms and public halls, which we have seen in full and successful operation, we select a few, in addition to those described in other parts of the work, as worthy of the particular attention of committees and others, who are looking round for a heating apparatus. We shall use the cuts and description by which the patentees and venders have chosen to make their several modes of warming known to the public, without intending to decide on the relative merits of any one mode.

CULVER'S HOT-AIR FURNACE.

PATENTED AND MANUFACTURED BY CULVER & CO., 52 CLIFF-STREET, NEW YORK.

Culver's Hot-Air Furnace, as described in the following diagram and explanations, is intended for hard coal, to be set in double walls of brick masonry in cellar or basement, below the rooms to be warmed.

Figure 1.

- A. Iron or Brick Ash Pit.
- B. Ash Pit door.
- C. Pot, or coal Burner, with or without soap-stone lining.
- D. Fire Chamber.
- E. Lower half of Tubular drum.
- F. Elliptical tubes.
- G. Upper half of Tubular drum.
- H. Top of Tubular drum.
- I. Cap and smoke pipe.
- K. Flat Radiator.
- L. Water basin or evaporator.
- M. Smoke pipe to chimney.
- N. Conductors of Hot Air.
- O. Cold air conductor and chamber.
- P. Feed door.
- Q. Hot-Air chamber.
- R. Damper in globe with rod attached.
- S. Pendulum valve for cleaning.
- Shows the direction of the currents of hot or cold air.

Culver & Co. also make, and put up, various sizes of Portable Furnaces, with metallic coverings, suitable for counting rooms, stores, school-rooms and small houses, warming the rooms in which they stand, as well as others in the same building, and they can be removed in summer as conveniently as stoves.

Figure 2.

Figure 3.

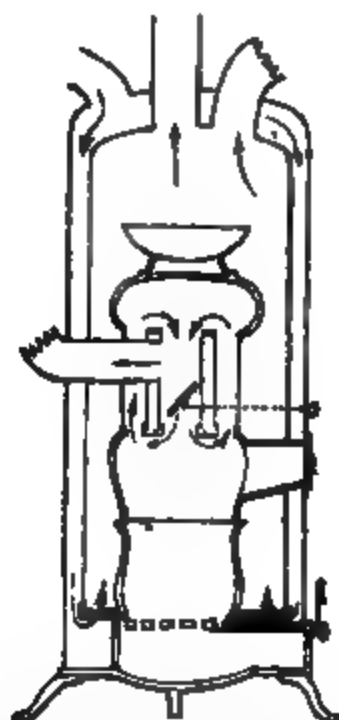


Figure 2 represents a section of large size Portable Furnace or double coverings of sheet iron or zinc. The same letters for reference are used as in Fig. 1.

Figure 3 represents a smaller size Portable Furnace, with two metal coverings and an evaporating dish standing upon the top of the drum.

The peculiarities and advantages of the Furnace are thus set forth:

1. Its compact, convenient and beautiful form.

2. Its great *durability*; being in all its parts of cast iron, set within walls of brick masonry. The *pot* or burner being whole, is found by experience to be more durable than those made of rings or segments, and entirely prevents the admission of gas into the hot-air chamber.

3. The great radiating surfaces of this Furnace exceed those of any other, and being nearly all perpendicular, and so arranged as to afford no chance for the soot, light coal ashes or dust to collect on the plates and prevent the transmission of heat through them, for it must be obvious to every thinking mind, that if a radiating surface is of a zig-zag, or any other form that prevents the descent of dust or soot in a perpendicular line, it will certainly collect dust upon it, and just so much surface thus covered & destroyed for radiating purposes, and in the same proportion will a greater consumption of fuel be required to produce a given result.

These furnaces are so constructed that heat acts actively upon those surfaces within, and produces the immediate and powerful heating of the cold air that is admitted to the outer surface from the atmosphere, through the tubes for that purpose.

4. The great economy in the use of fuel, making and controlling more heat than by any other process of using it.

5. The *joints* of this Furnace are so constructed that the expansion and contraction of the metal cannot open them to admit gas into the hot-air chamber, and it can be cleaned of soot and ashes easily, without the necessity of taking down or breaking a joint; its action is simple, as easily understood and managed as a cylinder stove, and as readily repaired and kept in order, and the manner of "removing the deposits" is entirely novel and most efficient.

6. The constant current of the pure atmosphere into the air chamber, with

the evaporation for tempering it to any degree of humidity, gives a fine healthful ventilation, and a soft summer temperature, suited to the most delicate constitution, and without injury to the building or furniture.

The above described Air Heaters are manufactured and sold, wholesale and retail, by Culver & Co., who, when required, set them in double walls of brick masonry, with cast iron smoke pipe to chimneys, and conductors of hot air, of double cross tin, terminating with registers in the rooms, and secured safely from fire by tin or soap-stone linings.

Figure 4.

Figure 4 represents patterns of scroll work Registers manufactured by Culver & Co., and put in with their furnaces if desired. The registers have valves under the surface, which are easily controlled by means of the star centers. They can be used for ventilating purposes as well as for admitting warm air.

The following directions are given in Culver & Co.'s Circular for the use of their Furnace.

DIRECTIONS FOR USE.—In kindling the fire, the valve should be opened by drawing out the Damper Rod R, so as to let the smoke pass directly through smoke pipe M to chimney.

Shavings, pine wood, or charcoal, should be thrown into the pot or coal burner C, and when well ignited, put in about half a hod of coal, and as soon as it also becomes ignited, fill the pot two thirds full of coal, and push the damper R partly in, so as to regulate the draught and heat as may be necessary. The valve may be entirely closed, if need be, so as to retain the heat, making it to pass through the Flat Radiator K.

In moderate weather, when little heat is wanted, put two shovels full of ashes on the centre of the fire, and by regulating the draught, you can make one fire last 24 hours without any alteration; and when you wish to renew the fire, poke out a portion of the ashes, and put on fresh coal, without turning the grate.

In cold weather, however, to secure a brisk fire, the crank should be turned so as to empty the pot entirely of ashes, and commence a new fire at least once in 24 hours.

When there is too much heat generated, the ash-pit door, B, should be closed entirely, and the damper rod partly drawn out, and if this is not sufficient, the Register in feed-door P may be opened; the heat in the different rooms may be regulated by opening or closing the Registers; all the Registers however should never be closed at the same time, unless the water door is opened to let out the hot air.

The cold-air conductor, O, should always be open when the Furnace is in operation.

PLANS AND DESCRIPTIONS OF THE PUBLIC SCHOOL-HOUSES IN
PROVIDENCE, R. I.

By an ordinance of the City Council of Providence, in the spring of 1838, the public schools were reorganized, and provision was made for a liberal course of instruction, in schools of different grades, for all the children of the city. A committee was appointed to examine into the condition of the school-houses then occupied by the public schools, and report what alterations, improvements, and additional accommodations were required. This committee, after a full investigation, reported in favor of building new school-houses, on large and eligible sites, in different parts of the city. After a further report from a sub-committee, who had visited Boston, Salem, Lowell, and New Bedford, for the purpose of examining the latest improvements in the construction of school-houses, and the style and arrangements of seats and desks, plans for the different grades of schools were determined on, and the committee were authorized to purchase such new sites as should be required, and "to erect such new school-houses as may be necessary to carry into full operation" the new ordinance. This committee acted with great discretion, and, at the same time, with wise regard to the accommodations of the public schools; and the result was, that, at the close of their work in 1842, no city in the United States could show so many public school-houses, uniformly well built, with most of the latest improvements, as Providence.

Since 1842, great improvements have been introduced into this class of buildings, in many of the large cities and villages of Massachusetts, as well as in the large districts of Rhode Island; and it is feared, that, in respect to ventilation, size of recitation rooms, and suitable accommodation for hats and outer garments, the public school-houses of Providence can no longer claim that superiority in school architecture which has been heretofore very generally, and most justly, accorded to them.

From the Report of the Building Committee to the City Council, giving the details of their proceedings and expenditures, it appears that they expended in the purchase of lots and the erection of buildings, \$100,060.92. Since this committee completed their duties, ten new houses have been erected, making the aggregate amount invested by the city in school-houses, lots, and furniture about \$150,000. The following plans and descriptions of these houses are taken, with permission, from the Report of Nathan Bishop, Esq., Superintendent of Public Schools in Providence dated August, 1846.

PRIMARY SCHOOL-HOUSES.

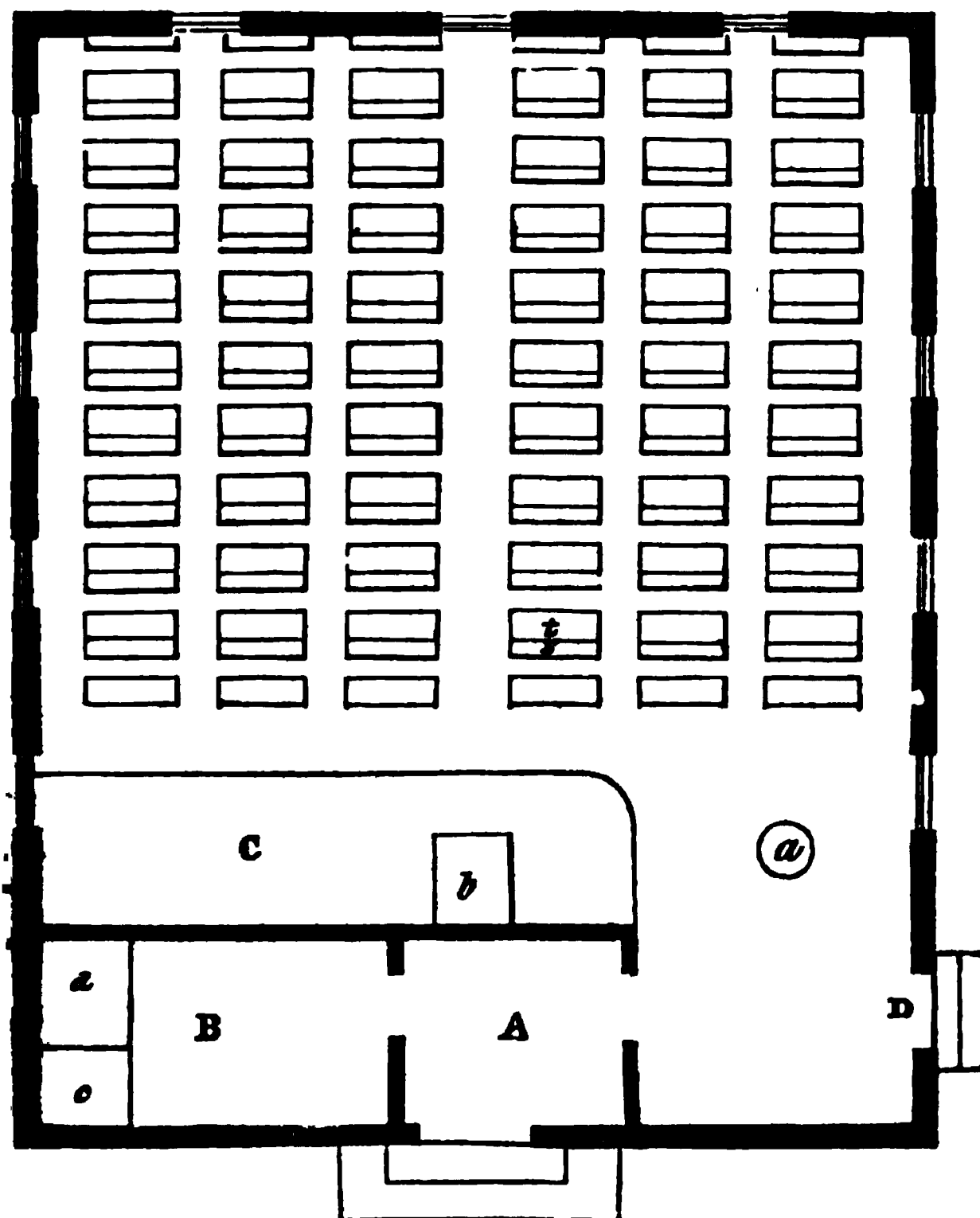
These buildings are located in different parts of the city, and are designed for the accommodation of children from four to six or seven years of age, or until they are prepared to enter the intermediate schools.

No. 1.—View of a Primary School-House.

These school-houses stand back from thirty to sixty feet from the line of the street, and near the center of lots varying from eighty to one hundred feet in breadth, and from one hundred to one hundred and twenty feet in length. Each lot is inclosed by a neat and substantial fence, six feet high, and is divided into two yards—one for boys and the other for girls—with suitable out-buildings, shade trees, and shrubbery.

These houses are each forty feet long by thirty-three feet wide, with twelve-feet posts, built of wood, in a plain, substantial manner, and, with the fences, are painted white, presenting a neat and attractive exterior.

The entrance is into a lobby [A] and thence into an open area, where stands the stove [a]. A portion of the lobby is appropriated to bins for charcoal [c] and anthracite [d], which is the fuel used in all the schools; the remainder [B] is occupied by a sink, and as depositories for brooms, brushes, &c. Each room is arched, thereby securing an average height of thirteen feet, with an opening in the center of the arch, two feet in diameter, for ventilation. The ventilator is controlled by a cord passing over a pulley, and descending into the room near the teacher's desk [b]. In each end of the attic is a circular window, which, turning on an axis, can be opened and closed by cords, in the same manner as the ventilator.



No. 2.—Interior of a Primary School-House.

The teacher's platform [C] is five feet wide, twenty feet long, and seven inches high, with a black-board ten feet long and three feet wide on the wall in the rear.

The floor is of inch and a half plank, tongued and grooved; and, for the purpose of securing warmth and firmness, and avoiding noise, is laid on cement.

The windows, eleven in number, of twenty-four lights, of seven by nine glass, are hung with weights, and furnished with inside blinds. The sides of the room and entries are ceiled all round with wood as high as the window-sills, which are four feet from the floor. The rest of the walls are plastered, and covered with white hard finish. Each room is provided with sixty seats [s] and desks [t], placed in six ranges; each range containing ten seats and desks, of three different sizes, and each seat and desk accommodating two scholars, or one hundred and twenty in all.

The center aisle is three feet and a half wide, and each of the others about two feet.

The desks are over three feet long, by sixteen inches wide, with a shelf beneath for books. The upper surface of the desk [a], except about two inches at the top [b], slopes one inch and a half in a foot.



No. 3.—View of Top of a Desk, and Sectional View of Primary Seats and Desks.

The front of the desk, constituting the back of the next seat, slopes one inch in a foot. The seat also inclines a very little from the edge. The seats are of four different sizes, varying from seven to ten inches wide, and from nine to fourteen inches in height, the lowest being nearest the teacher's platform.

INTERMEDIATE SCHOOL-HOUSES.

All the buildings of this class are two stories high, affording accommodations for two schools, a primary and an intermediate. These houses are generally in pleasant situations, on large lots, varying in size from one hundred feet wide by one hundred and twenty feet long, to one hundred and fifty by two hundred feet.

Rows of shade trees, consisting of elms, lindens, and maples, are planted along the side-walks and the fences inclosing the yards; and evergreens, the mountain ash, and other ornamental trees, are placed within the inclosures.

These houses are forty-four feet long, by thirty-three feet wide. Some of them are built of wood, the remainder of brick, and all in a tasteful and substantial style.

The rooms are large, and easily ventilated, being twelve feet in the clear, with large openings in the ceiling of the upper room, and on the sides in the lower room, leading into flues in the walls, which conduct the foul air into the attic, from which it escapes at circular windows in the gables of the buildings. These flues and windows can be opened and closed by cords passing over pulleys, and descending into the rooms below, where the teachers can control them with ease.



No. 5.—Sections of Ventilators.

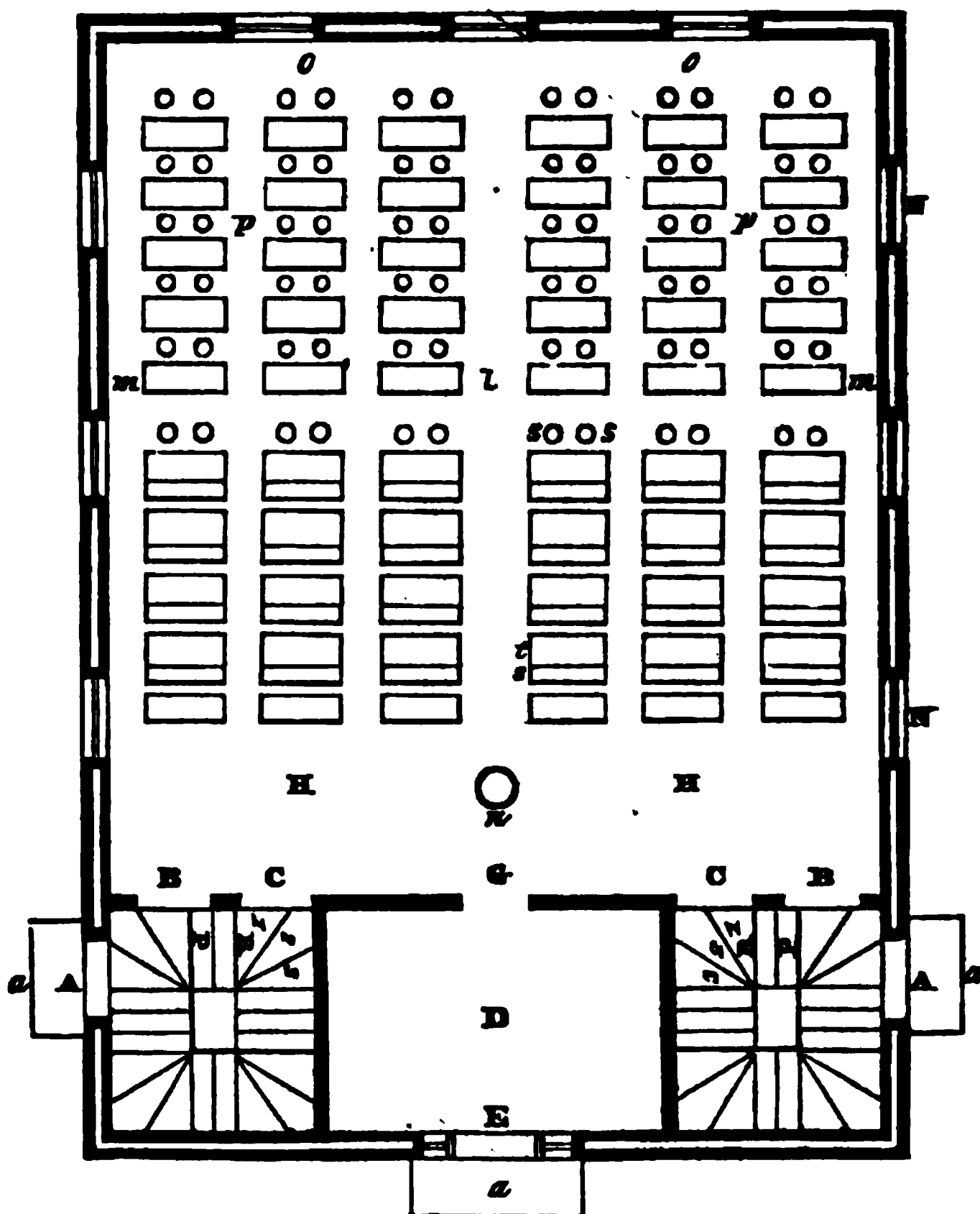
In this cut, the cord [i], passing over the pulley [j], raising [A], hung on hinges at [g], opens wholly or partially the ventilator [f], a circular aperture three feet in diameter. The plan of ventilating the lower rooms is shown on

FIG. 4.—View of an Intermediate Balcony House

the other part of the diagram, in which [a] represents a cord running over a pulley, and attached to [c], a board three feet long by one foot wide, opening the space between [b], the top of the lower room, and [d], the floor of the upper, leading into the flue [e], ascending to the attic.

The windows, nine in number in each school-room, of twelve lights, of ten by sixteen glass, are hung with weights, so as to be easily opened at top and bottom, and furnished with Venetian blinds inside, to regulate the amount of light admitted.

The floors are of hard pine boards, an inch and a half thick, and about six inches wide, tongued and grooved, and laid on mortar, as a protection against fire, for the prevention of noise, and to secure warmth and firmness. All the rooms, entries, and stairways are ceiled up with matched boards about four feet, as high as the window-sills. The remaining portions of the walls are plastered, and coated with white hard finish.



No. 6.—Interior of an Intermediate School-House.

The walls of some of these buildings are solid stone-work, faced with brick; others are built with double brick walls, as above shown, connected by ties of iron or brick.

As the rooms in the lower stories of this class of buildings are appropriated to primary schools, and are furnished in the same manner as those already described, the preceding cut is intended to serve the double purpose of exhibiting on the *first* floor only the improvements on the former plan, and, on the *second*, the whole view of a room for an intermediate school.

The steps [a, a, a] are broad, granite blocks, with scrapers on each end. The side doors [A, A], one for boys, the other for girls, lead into entries, eight feet by ten, from which the pupils of the primary schools pass through the doors [B, B] into the main rooms, which differ from those above described, in having a space [o, o], two feet wide, on the back part of the rooms, for reading and other class exercises; and the recitation-room, [D], another valuable improvement, as it avoids the confusion arising from having two recitations in one room at the same time.

The flight of stairs in each entry, commencing at the points [R, R], and ascending in the direction of [1, 2, 3], lands on the open space [P] in the upper entry, from which the pupils pass through the doors [C, C] into the school-room.

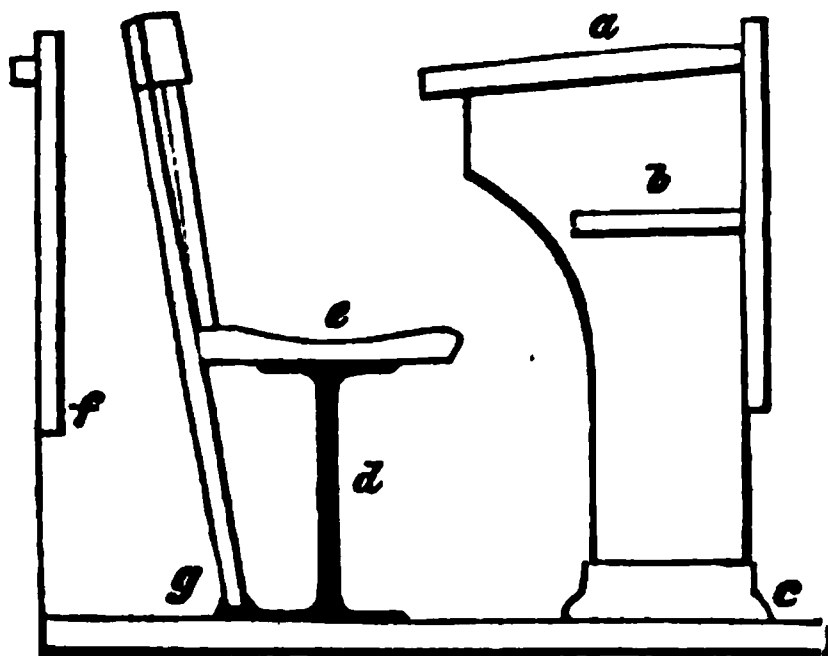
Coal-bins and convenient closets, for brooms, brushes, &c., are built under the stairs, in the lower entries; and similar closets, for the same purposes, are provided in the upper entries.

The large area [H, H], thirty feet long by seven wide, is the same in both the rooms, and is occupied by the principal teacher in each school, for such class exercises as may be more conveniently managed there than in the other place [o, o], left for the same purpose. The position of the stove [n] is such as not to render it uncomfortably warm on the front seats, and, at the same time, not to interfere with the passage of classes through the door [G] into the recitation-room [D], which is fourteen feet by ten, and, like all the school-rooms, furnished with black-boards. The lower room is lighted by a window over the front door, and by the side-lights; and the upper one by a double or mullion window, of sixteen lights, of ten by sixteen glass.

The side aisles [m, m] are two feet and a half wide; the others [P, P, &c.] are only eighteen inches wide, except the middle one [C], which is three and a half feet. The passage across the center of the room is about a foot and a half wide, and is very convenient for teachers in passing to the different parts of the room, and also for scholars in going to and from their recitations.

The seats and desks, in the front part of this room, are made and arranged on the same plan as those in the primary school-rooms above described, differing from them only in being one size larger. The lower end, or foot of each perpendicular support, or end-piece, is strongly fastened into a groove in a "shoe," or piece of plank, which, being screwed to the floor, secures the desks in a durable manner, and in a firm position.

The others are constructed upon a different plan, designed especially for the accommodation of pupils while writing. These desks and seats are of three different sizes.



No. 7.—Section of a Writing-Desk and Seat.

The top of the desk [a] is of pine, one inch and a half thick, fifteen inches wide, and three feet and a half long. These desks are twenty-seven inches high on the front, and twenty-four on the side next to the seats. A space about three inches wide, on the front edge of the top, is planed down to a level, and an inkstand is let into the center of this, even with the surface, and covered with a small lid. The ends of these desks are an inch and a half thick, and fastened by a strong tenon to the shoe [c], which is screwed to the floor. The front of the desk, and the shelf [b], for books, &c., are inch boards; the whole desk, made in the strongest manner, is painted a pleasant green, and varnished. In the next smaller size, the same proportion is observed, but all the dimensions are one inch *less*; and in the third, or smallest size, the dimensions are all one inch less than in the second. For each desk there are two chairs, resting on cast-iron supporters [d], an inch and a quarter in diameter, with a wide *flange* at each end; the upper one, screwed to the under side of the seat [e], is a little smaller than the lower, which is fastened to the floor by five strong screws, rendering the chair almost immovable. The largest size seats [e] in these rooms are fourteen inches in diameter and fifteen inches high, with backs, twenty-eight inches from [g] to the top, slanting an inch and a quarter to a foot. These backs are made with three slats, fastened by strong tenons into a top-piece, like some styles of common chairs, and screwed to the seat, while the middle one extends down into a socket on the foot of the iron standard. The seats, like the desks, are diminished one inch for the middle size, and two for the smallest, preserving the proportions in the different sizes, which adapts them to the sizes of the desks.

GRAMMAR SCHOOL-HOUSES.

There are six buildings of this class, constructed on the same plan, and of the same size. They are seventy feet long by forty wide, with a front projection, twenty-eight feet long by fourteen feet wide. They are located on very large lots, varying from one hundred and fifty to two hundred feet long—from a hundred and twenty to a hundred and fifty feet wide. All of them, except one, are on corner lots, and all have large open spaces around them. These, and all the other public school-houses in the city, are protected with Quimby's lightning-rods, and each is furnished with a bell, which can be heard in the remotest parts of its district.

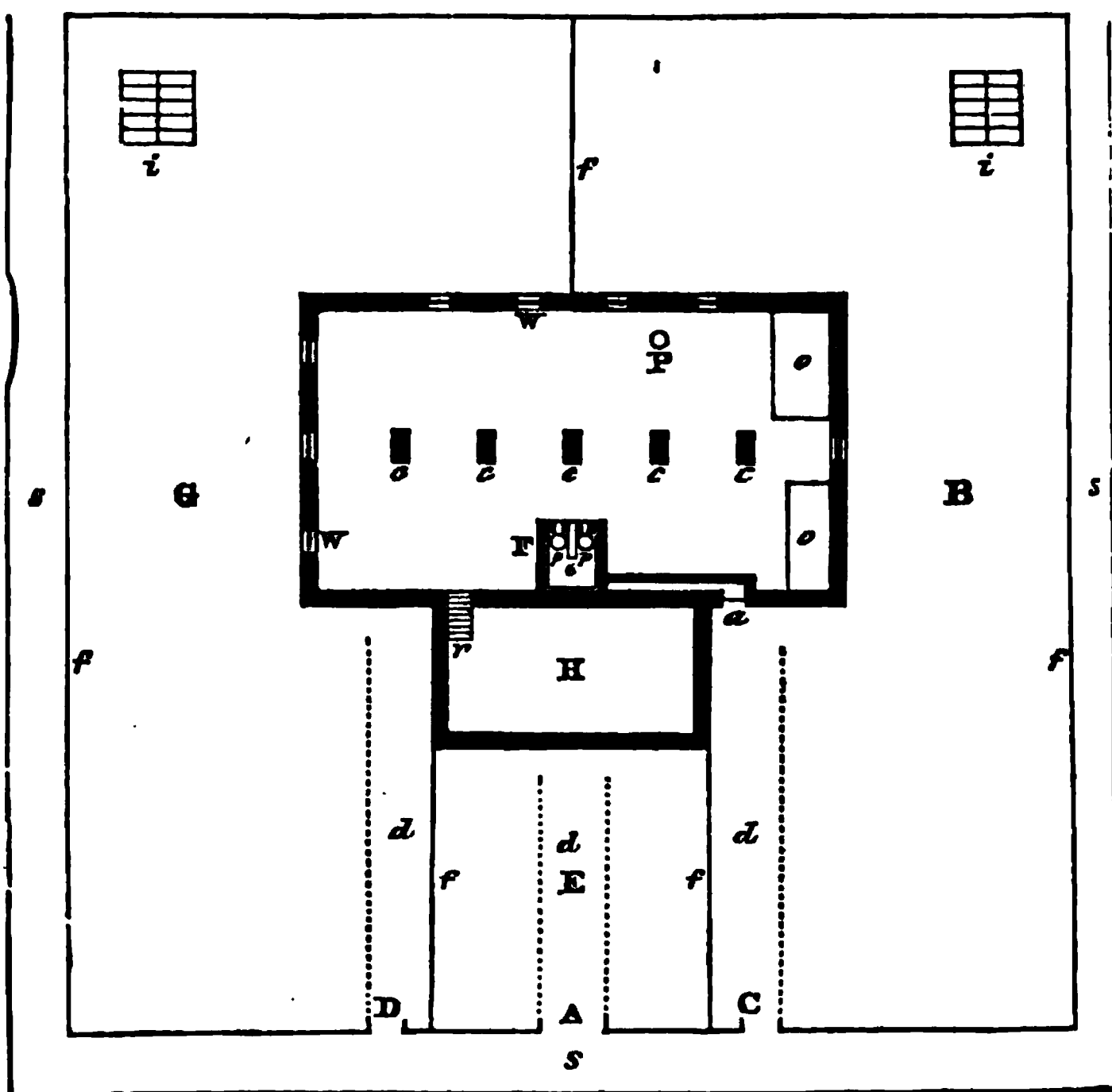
In the accompanying view, No. 9, the engraver has represented a *few* trees, a little *larger* than any at present around these buildings, because he could not crowd all the trees and shrubbery into the picture, without obscuring the lower part of the house.

The cut on p. 91, No. 10, is a ground plan, on a reduced scale, of a Grammar School-House, including a general view of the cellar, yards, fences, gates, sidewalks, &c.

The yards around each of the grammar school-houses contain from 18,000 to 20,000 square feet, or between a third and half an acre. These grounds are inclosed, and divided into three separate yards, by substantial close board fences [f, f, f, f], six feet high, neatly made, and painted white. The boys' play-ground [B], and that of the girls [G], are large; but the front yard [E] is small, and, not being occupied by pupils, is planted with trees and shrubbery. The graveled sidewalks [s, s, s], running on two sides of all the grammar school lots, and on three of some of them, are shaded by rows of elms, maples, and lindens, set near the curb-stones. The gates [A, C, D] and the graveled walks [d, d, d] lead to the front and the two side doors of the school-house; and [f] is a large gate for carting in coal, &c. The out-buildings [i, i] are arranged with a large number of separate apartments on both sides, all well ventilated, each furnished with a door, and the whole surrounded with evergreens.

In the plan of the projection [H] the stairway [r] leads to the cellar, which is seven feet in the clear, and extends under the whole of the main building. These cellars are well lighted, having eight windows [W, W], with ten lights of seven by nine glass. The windows, being hung with hinges on the upper

No. 3.—View of a German School-House.



No.10 .—Ground Plan, &c., of a Grammar School-House.

side, and fastened with hooks and staples at the lower edge, may be opened by raising them into a horizontal position, where they are fastened with hooks as when closed. With this arrangement, it is easy to keep the cellars well ventilated at all seasons. The openings for the admission of coal into the bins [o, o], one for anthracite, and the other for charcoal, are furnished with sheet-iron shutters, fastening on the inside. Every school-house has, in the cellar, an abundant supply of good water, obtained from a fountain, or from a well, which is generally outside of the building, the water being brought in by a pump [P]. A supply of good water for a school-house should not be considered merely as a convenience, but as absolutely necessary.

The horizontal section of a furnace [F] shows merely the ground plan. The cold air passes through [a] to the air-chamber, where it is warmed by the fires in [p, p], two cast-iron cylinders, fourteen inches in diameter. The evaporator [e] holds about fifteen gallons of water, which is kept in a state of rapid evaporation, thus supplying the air-chamber with an abundance of moisture.

In the plan and construction of the various parts of these furnaces, special pains have been taken to remove all danger of fire—an important consideration, which should never be overlooked. The furnace is covered with stone, thickly coated with mortar, and the under side of the floor above is lathed and plastered, not only above the furnace, but at least ten feet from it in every direction.

A full description of the construction and operation of the furnaces used in the public school-houses will be given under another diagram. The cellar walls and the stone piers [c, c, c, c, c] are well pointed, and the whole inside,

including the wood-work overhead, is neatly whitewashed, giving this apartment a neat and pleasant appearance.

The walls of all these buildings are of stone, about two feet thick, faced with common brick, and painted a tasteful color.



No. 11.—Plan of the First Floor of a Grammar School-House.

There are three entrances to these houses; the front [A], and the two side doors [B], for boys, and [G], for girls, leading into the entries [F, C, C]. The front is a large double door, with a beautiful frontice of fine hammered Quincy granite. At all the outside doors are two or three hewn granite steps, furnished with four or six scrapers at each door.

Pupils belonging to the schools in the lower story pass from the side entries into the middle one, and, ascending two steps at [a], enter their respective rooms [T, S], which are rather larger than those in the primary and intermediate school houses, previously described, being thirty-six feet by thirty-two inside, and eleven feet high in the clear.

In each of the entries [C, C] there is a provision [t, t, t, t] for setting up umbrellas. It resembles a ladder placed in a horizontal position, and is fastened to the ceiling on one side, and supported on the other by substantial posts of oak or other strong wood, turned in a tasteful style, and set into the floor.

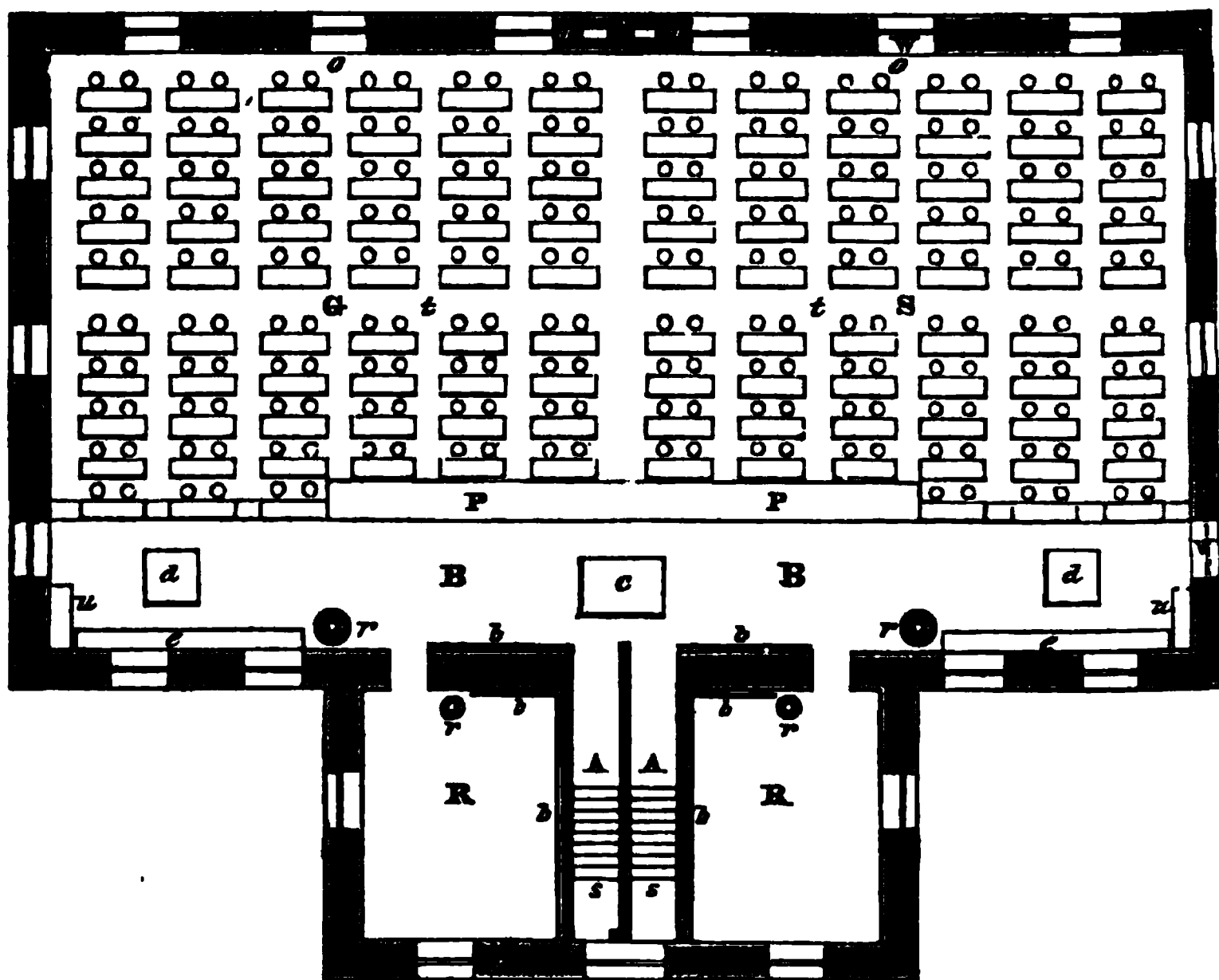
The seats and desks in the rooms [T and S] are of the same dimensions, and arranged in the same manner as those in the primary and the intermediate school-rooms before described. The small iron posts [c, c, c, c], about two and a half inches in diameter, supporting the floor above, are placed against the ends of the seats, so close as not to obstruct the passages at all. Besides the platforms [P, P], twenty feet by six—the tables, three feet by four, for the teachers, and the closets [l, l], for brushes, &c., there are black-boards, painted upon the walls, extending from the doors [D, D] to the windows, fourteen feet long by four wide, with the lines of a stave painted on one end, to aid in giving instruction in vocal music.

The plan of ventilating these rooms on the first floor is represented by cut No. 5, page 85. Every room is provided with two ventilators, each three feet long by about twelve inches wide, opening into flues of the same dimensions, leading into the attic, from which the impure air escapes at circular windows in the gables. These flues should have extended down to the bottom of the rooms, with openings on a level with the floors, so that, when the rooms are warmed with air from the furnaces above the temperature of the human breath, they might be ventilated by removing the foul air from the lower parts, and thus causing fresh, warm air to be slowly settling down upon the scholars—a very pleasant and healthful mode of ventilation.

These rooms are well warmed by heated air, admitted through registers [r, r], eighteen inches in diameter, from the furnace below, from which [p, p] tin pipes, fourteen inches in diameter, convey the air to the grammar school-rooms in the second story.

These rooms are large, with arched ceilings, measuring twelve feet to the foot of the arch, and seventeen to its crown. They are each provided with two ventilators, three feet and a half in diameter, placed in the crown of the arch, about twenty feet apart.

The entrances to the Grammar School-rooms are by two short flights of stairs on a side; from the lower entries to [s, s], spaces about three feet square,



No. 12.—Plan of a Grammar School-Room.

and thence to [A, A], spaces three by five feet, extending from the top of the stairs to the doors opening into the school-room.

The master's table [c], as well as tables [d, d], for the assistants, are movable. The large area [B, B], being fourteen inches above the floor of the room, is eight feet wide by sixty-four long, with large closets [u, u] at the ends, fitted up with shelves, &c., for the use of the teachers.

The school-room is warmed by heated air, admitted at the registers, [r, r] and the recitation-rooms [R, R] in the same manner, by the small registers, [r, r] all of which are connected with the furnace in the cellar by large tin pipes or conductors.

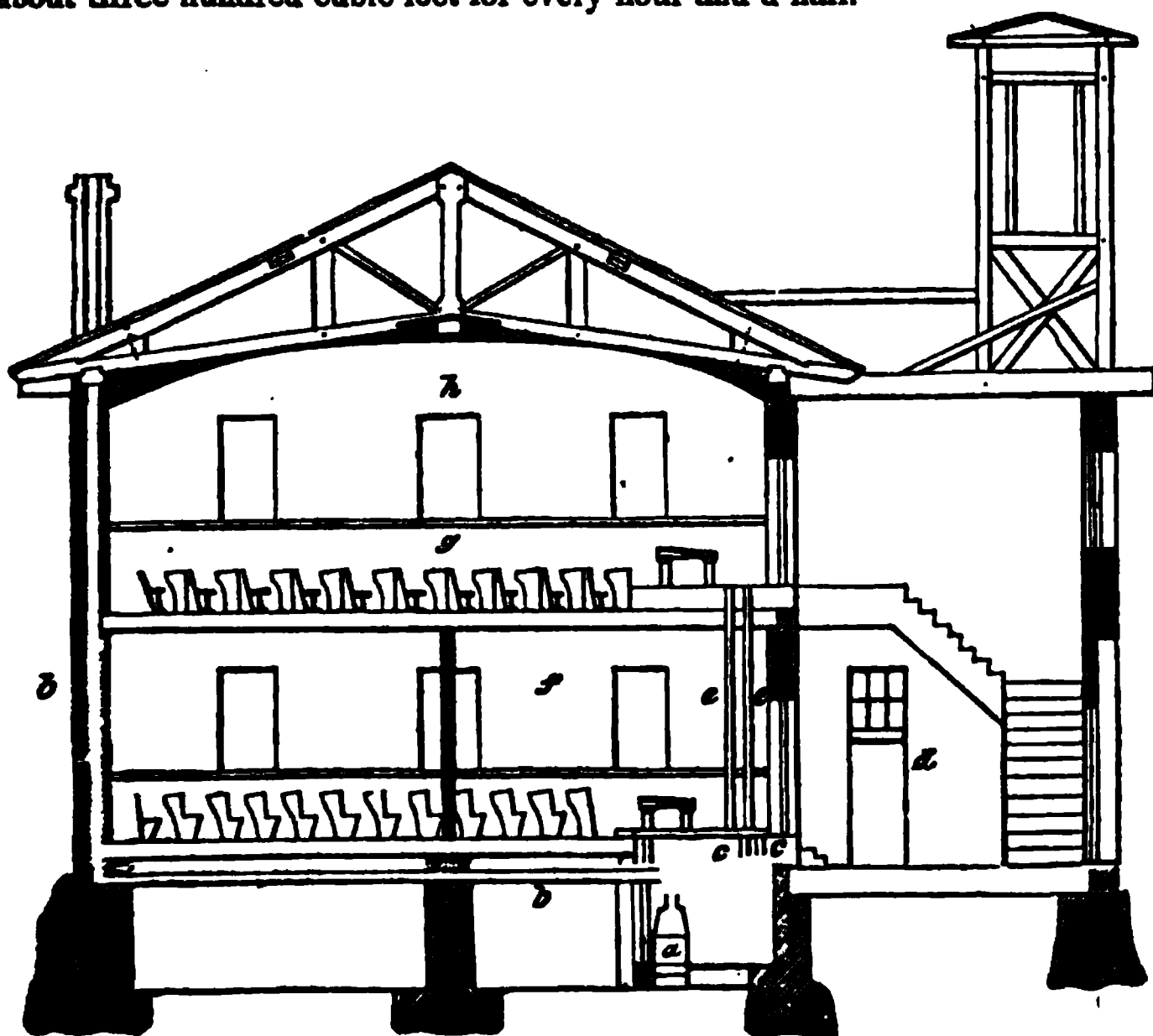
The black-boards, four feet wide, painted upon the hard-finished walls, are indicated by the lines [b, b, b, &c.] in the recitation-rooms, and along the walls behind the master's table, extending on each side to the windows beyond, [c, c] making, in each Grammar School, about three hundred square feet of black-board.

The long benches [e, e] are used for seating *temporarily* new pupils on their entering school, until the master can assign them regular seats; also for seating visitors at the quarterly examinations. The space [P, P], a broad step, eighteen feet long and two feet wide, is used for some class exercises on the black-boards. The passage [t, t], about eighteen inches wide, running the whole length of the room, affords great facility in the movements of pupils to and from the recitations and other class exercises. The master's classes generally recite in the space [o, o] on the back side of the room, four feet wide and sixty-four feet long, where seats are placed for scholars to sit during recitation, when it is necessary; and the same accommodations are provided in the recitation-rooms.

The windows [W, W, &c.], which are hung with weights, and furnished with inside blinds, in the manner before described, contain twelve lights each, of ten by sixteen glass, of the strongest kind, the Saranac or Redford glass.

The quantity of air furnished for each scholar in the public school-rooms is a matter of no small importance. The rooms for the primary and the intermediate schools—the former designed to accommodate one hundred and twenty, and the latter only ninety-six pupils—contain between fifteen and sixteen thousand cubic feet of atmospheric air. The rooms for the grammar schools, intended to accommodate two hundred pupils, contain over thirty-five thousand cubic feet, after a suitable deduction for the furniture is made.

This estimate allows every child, when the rooms are not crowded, about one hundred and fifty cubic feet of air for every hour and a half, on the supposition that no change takes place, except at the times of recess, and at the close of each session. But the rate at which warm air is constantly coming into the rooms from the furnaces, increases the allowance for every child to about three hundred cubic feet for every hour and a half.



No. 12.—Transverse Section of a Grammar School-House.

The preceding cut is given in order to show an *end view*, the projection, belfry, rooms, seats, desks, and cellar. An imperfect section of the warming apparatus is presented, giving an outline of the plan of its construction. The smoke-pipe, connected with [a], the heater, coiled twice around in the air-chamber, passes off in the direction of [b, b] to the chimney. The short tin pipes [c, c] conduct the warm air into the lower rooms; and the long ones [e, e] convey it to the rooms in the second story. On each side of the projection over the door [d] is a window, lighting the outside entry, and also the middle entry by another window over the inside door. The end views of seats and desks do not represent the different sizes very accurately, but sufficiently so to give a correct idea of the general plan.

THE HIGH SCHOOL-HOUSE.

This building occupies an elevated and beautiful situation, at the head of President street, near the central part of the city. It is a specimen of plain, but tasteful architecture, on which the eye reposes with pleasure. The lot, somewhat irregular in its form, is equivalent to one a hundred feet by a hundred and fifteen, and lies on a gentle hill-side, rendering it easy to construct a basement almost entirely above ground, except on the back side. The extensive grounds in front, and on either side, all planted with trees, and separated from the High School only by the width of the streets, add much to the beauty and pleasantness of its situation. The yards around it are inclosed by a handsome baluster fence, resting in front on heavy blocks of rough granite. The steps are of hewn granite, twelve feet long, making a very convenient entrance.

The High School being designed for both boys and girls, an entirely separate entrance is provided for each department. The front door, at which the girls enter, has a very beautiful frontispiece, with double columns (thus providing for large side-lights), and a heavy ornamented cap, all cut from Quincy granite in the best style.

The door in the circular projection, fronting on another street, has also a fine frontispiece, cut from Quincy granite.

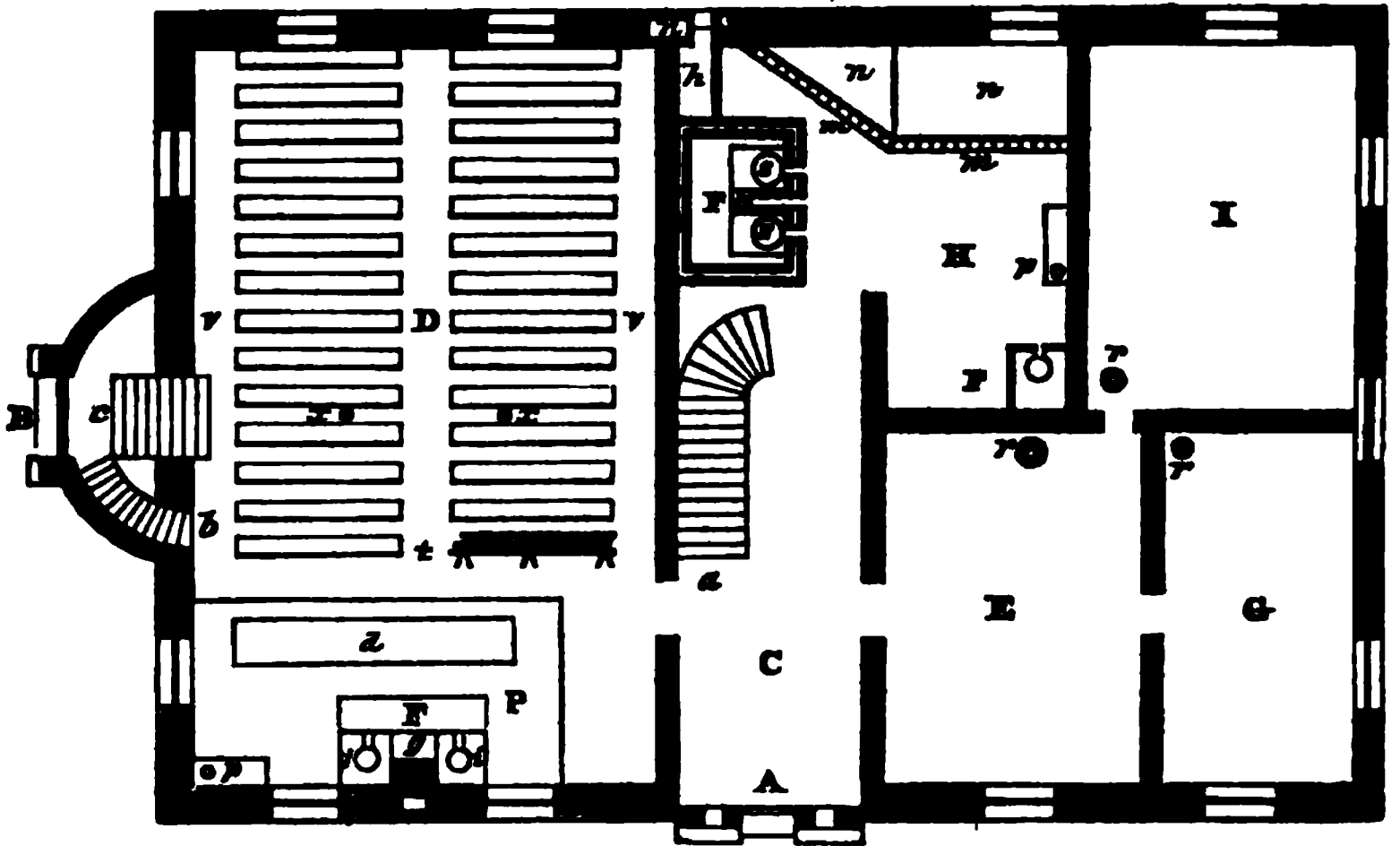
The size of this building is fifty feet by seventy-six, with a projection of seven feet. The walls of the basement are of stone, three feet thick, and faced with rough-hewn granite, laid in courses twenty inches wide. Each stone has a "chiseled draft, fine cut," an inch wide around the face, and all the joints as close and true as if the whole were fine hammered. The remaining portions of the walls, diminishing in thickness as they rise, are faced with the best quality of Danvers pressed brick, giving the building a beautiful appearance. The roof is covered with tin, every joint soldered, and the whole surface kept well painted.

The rooms in the basement story, which is twelve feet high in the clear, are separated from each other by solid brick walls. The pupils in the girls' department, entering the house at [A], pass into the large lobby [C], twelve feet by twenty-eight, from which they can go to all parts of the building appropriated to their use.

The furnace-room [H] has a brick floor, and is kept in as good order as the other parts of the house. The coal-bins [n, n] and the furnace [F] are so constructed, that, with an ordinary degree of care, the room may be kept as clean as any of the school-rooms. The arrangements [m, m] for setting up umbrellas have been described. The pump [p], accessible to all in the girls' department, connected with a nice sink, lined with lead, affords an abundant supply of excellent water. The rooms [E, G, I], each not far from sixteen by twenty-four feet, are appropriated as the Superintendent's Office, and for such meetings of the School Committee, and of its sub-committees, as may be appointed there.

The large lecture-room, on the opposite side of the lobby, is furnished with settees, which will accommodate about two hundred and fifty pupils. On the

No. 14.—View of the High School House.



No. 15.—Plan of the Basement of High School.

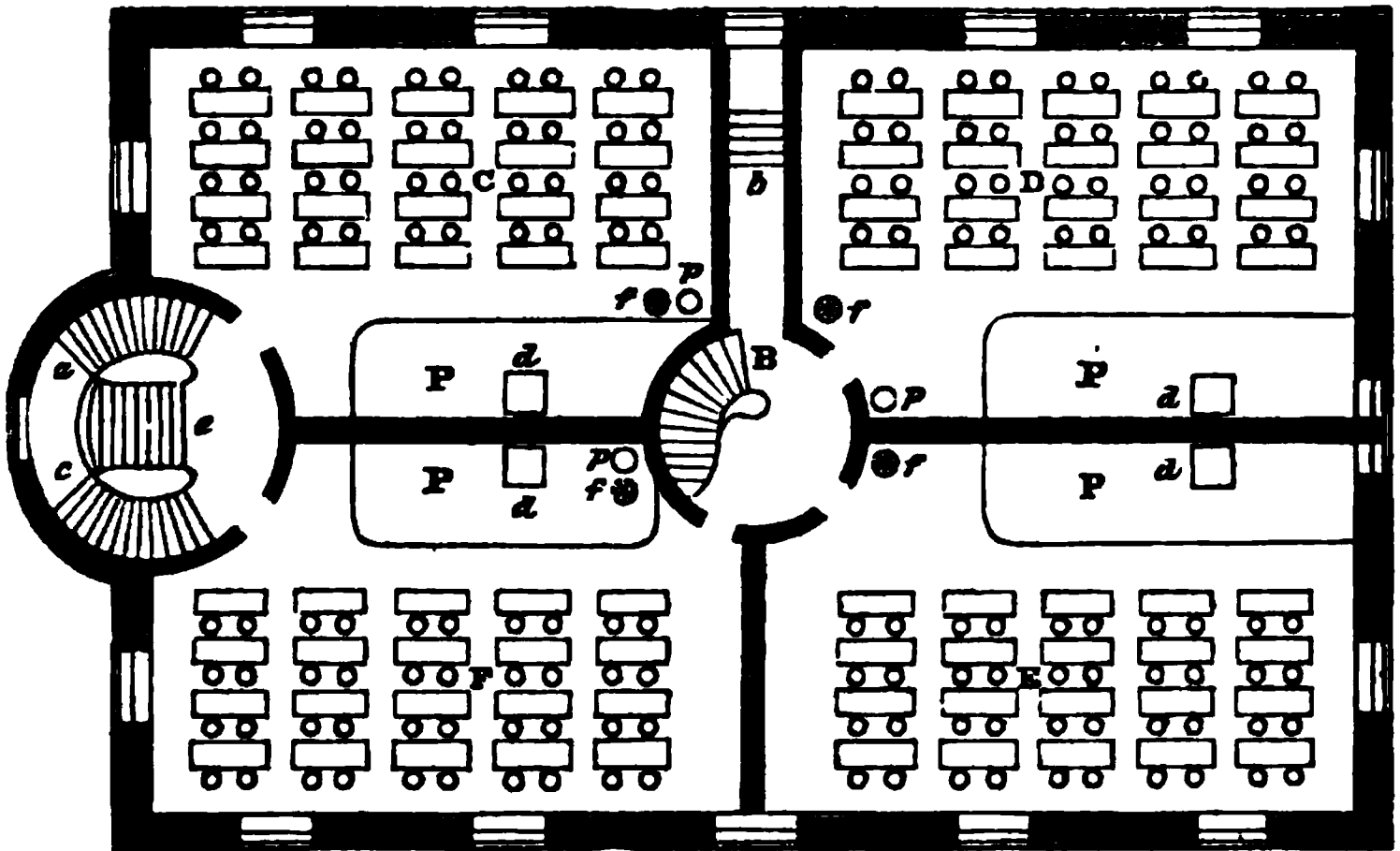
platform [P], raised seven inches from the floor, a long table or counter [a], made convenient for experimental lectures in Chemistry, Natural Philosophy, &c., having pneumatic cisterns for holding gasses. At [F, &c.] are suitable provisions for the fires used in the preparations of chemical experiments. The pump [p], with a sink like the other, is used exclusively by the pupils in the boys' department.

In all lectures, and other exercises in this room, the girls, entering at [a], occupy the seats on the right of [D], the middle aisle. The boys, entering by descending the short flight of stairs [b], are seated on the opposite side of the room. This may seem like descending to useless particulars, but it is done to show that there are no grounds for the objections sometimes made against having a school for boys and for girls in the same building, where the departments are kept entirely separate, except in exercises in vocal music and occasional lectures. The boys enter the house at the end door [B], which is six feet above the basement floor, and, by a short flight of stairs, they reach the first story at [e].

The three rooms [C, D, F] are appropriated to the department for girls. They are easy of access to the pupils, who, ascending the broad flight of stairs, terminating at [B], can pass readily into their respective rooms.

The course of instruction in the school occupying three years, the room [D] is appropriated to the studies for the first, [E] to those of the second, and [F] to the course for the third year. In each room there are three sizes of seats and desks, and their arrangement in all is uniform. The largest are on the back side of the room. The largest desks are four feet eight inches long, and twenty-two inches wide on the top; the middle size is two inches smaller, and the other is reduced in the same proportions. The largest seats are as high as common chairs, about seventeen inches, and the remaining sizes are reduced to correspond with the desks. The passages around the sides of the rooms vary from two to four feet wide, and those between the rows of desks, from eighteen to twenty-four inches.

On the raised platforms [P, P, P, P] are the teachers' tables [d, d, d, d], covered with dark woollen cloth, and furnished with four drawers each. The registers [f, f, f, f] admit the warm air from the furnace, and the pipes [p, p, p] conduct it into the rooms in the upper story. The passage [b] leads into the back yard, which is ornamented with a variety of shrubbery.

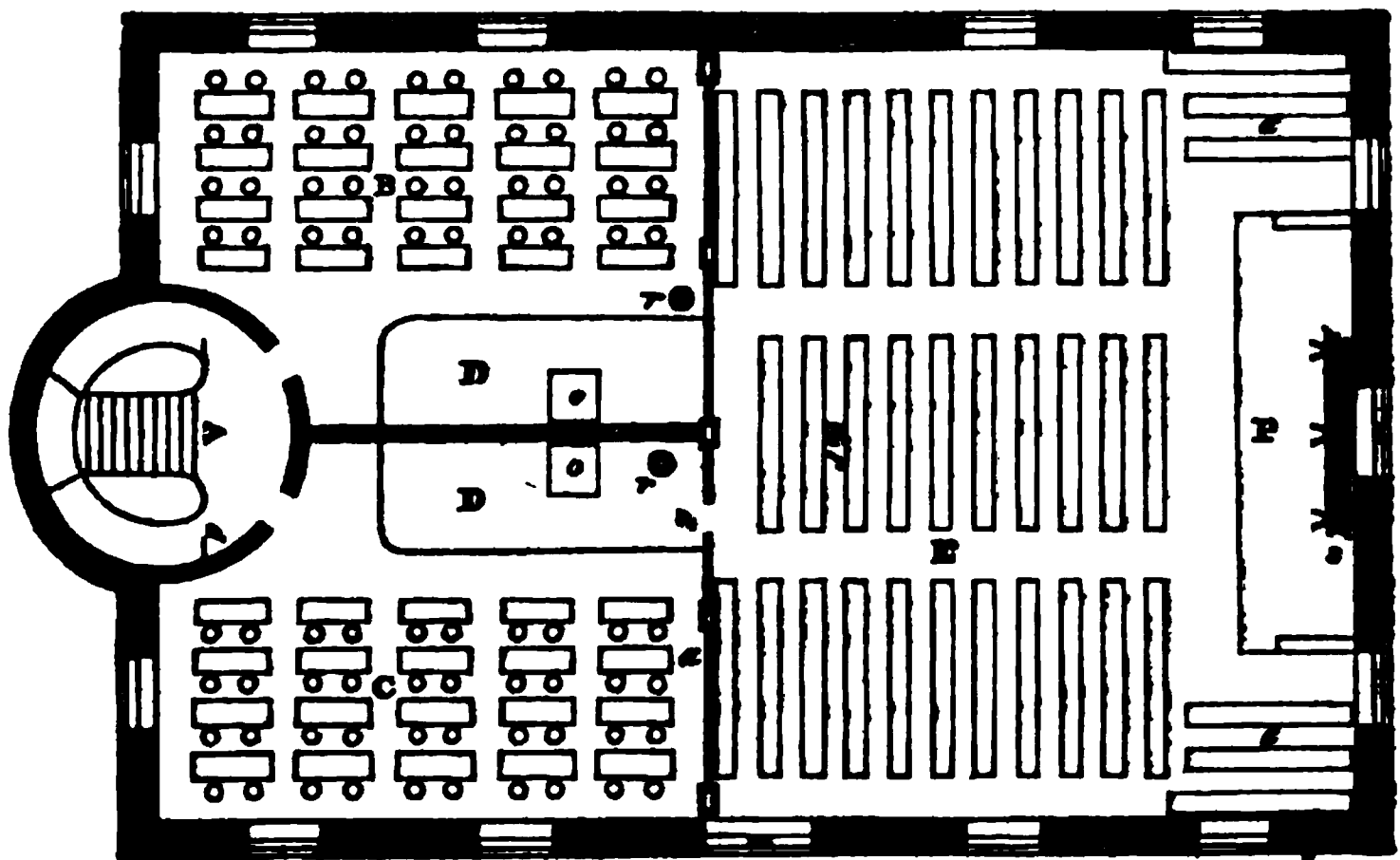


No. 16.—Plan of the First Story of the High School.

The door leading from the room [F] is used only for teachers and visitors, except when the two departments assemble in the hall.

In the room [C] the boys pursue the studies prescribed for the first year; the other rooms in this department are in the next story.

Pupils ascending from the area [e], by two circular stairways, land on the broad space [a, c], from which, by a short flight of stairs, they reach [A], in the following cut, the floor of the upper story, which is sixteen feet in the clear.



No. 17.—Plan of the Second Story of the High School-House

The room [B] is appropriated to the middle class, and [C] to the senior class. The arrangement of the seats and desks are the same as in the other rooms, except they are *movable*—being screwed to a frame not fastened to the floor, as shown in this cut.



The cross partition [a]—see cut No. 17—is composed of four very large doors, about fourteen feet square, hung with weights in such a manner that they may be raised into the attic, thus throwing the whole upper story into one large hall—an arrangement by which one room can be changed into *three*, and three into *one*, as the occasion may require. On all public occasions, such as Quarterly Examinations, and Annual Exhibitions, the rooms are thus thrown together, and the seats and desks turned so as to face the platform [P], in [E], the principal hall.

Observation and experiment, relative to the modes of warming the public school-rooms, have proved that very *large* stoves, eighteen inches in diameter, render the temperature of the rooms *more uniform and pleasant*, and that they are also *more economical*, both in regard to the amount of fuel consumed, and the amount of repairs required. It is a general principle, that a warming apparatus, containing a *large* quantity of fuel, undergoing a *slow* combustion, is better than one containing a *small* quantity of fuel, in a state of *rapid* combustion. The stoves in the small buildings, and the furnaces in the large ones, are constructed on this principle.

In regard to the construction of furnaces for warming public buildings or private dwellings, so much depends upon circumstances, that no specific plan can be given which would be successful in all cases. One familiar with the principles which regulate the motions of currents of air at different temperatures, can, with an ordinary degree of good judgment and mechanical skill, make a furnace in any place, where one can be made at all, that will accomplish all which the laws of nature will permit.

The following cut is intended to illustrate *two* plans for a furnace.

No. 18.—A Vertical Section of a Furnace.

In the first, the cold air is admitted at [a], through the outside walls of the building, and descends in the direction described by the arrows, to [r], and thence rises to the top of the furnace, as shown by the arrows. At this place, the cold air diffuses itself over the whole upper surface, about eight feet by ten, and passes down between the double walls of the furnace, in the spaces [s, t], which extend all around the furnace, and rises from beneath, through a

large opening [*b*], into the air-chamber, where it is heated and conducted to the rooms by large pipes, [*f, h*]. The object of this mode of taking in air is two-fold. In the first place, the constant currents of cold air, passing over the top of the furnace, keep that surface comparatively cool, and also keep the floors above the furnace cool, thus removing all danger of setting fire to the wood-work over the furnace.

In the second place, as the inside walls are constantly becoming heated, and the currents of cold air, passing down on all sides of the walls, become rarified by their radiation, and thus, as it were, take the heat from the outside of the inner walls, and bring it round into the air-chamber again, at [*b*]. This is not mere theory, but has been found to work well in practice. On this plan, the outside walls are kept so cool, that very little heat is wasted by radiation.

In the second plan, the cold air is admitted as before; but, instead of ascending from [*r*] to the top of the furnace, it passes through a large opening, directly from [*r*], to [*p, p, p*], representing small piers, supporting the inside walls, and thence into the air-chamber at [*b*], and also ~~up~~ the spaces [*t, t*], to the top [*s*], from which the air warmed by coming up between the walls is taken into the rooms by separate registers, or is let into the sides of the pipes [*f, h*].

By this plan, the air passes more rapidly through the air-chamber, and enters the rooms in *larger* quantities, but at a *lower* temperature. This is the better mode, if the furnace be properly constructed with large inlets and outlets for air, so that no parts become highly heated; otherwise, the wood-work over the furnace will be in some danger of taking fire. The general defects in the construction of furnaces are:—*too small* openings for the admission of cold air—*too small* pipes for conveying the warm air in all horizontal and inclined directions—and defective dampers in the perpendicular pipes. A frequent cause of failure in warming public buildings and private dwellings may be found in the ignorance and negligence of attendants.

A single remark will close this report, which has been extended, perhaps too far by specific details—a want of which is often complained of by mechanics who are engaged in building school-houses.

It is believed to be *best*, and, all things considered, *cheapest*, in the end, to build *very good* school-houses—to make their external appearance pleasant and attractive, and their internal arrangements comfortable and convenient—to keep them in *first-rate* order, well repaired, and *always clean*.

The amount of damage done to school property in this city has uniformly been *least* in those houses in which the teachers have done *most* to keep every thing in very good order. The very appearance of school property well taken care of rebukes the spirit of mischief, and thus elevates the taste and character of the pupils.

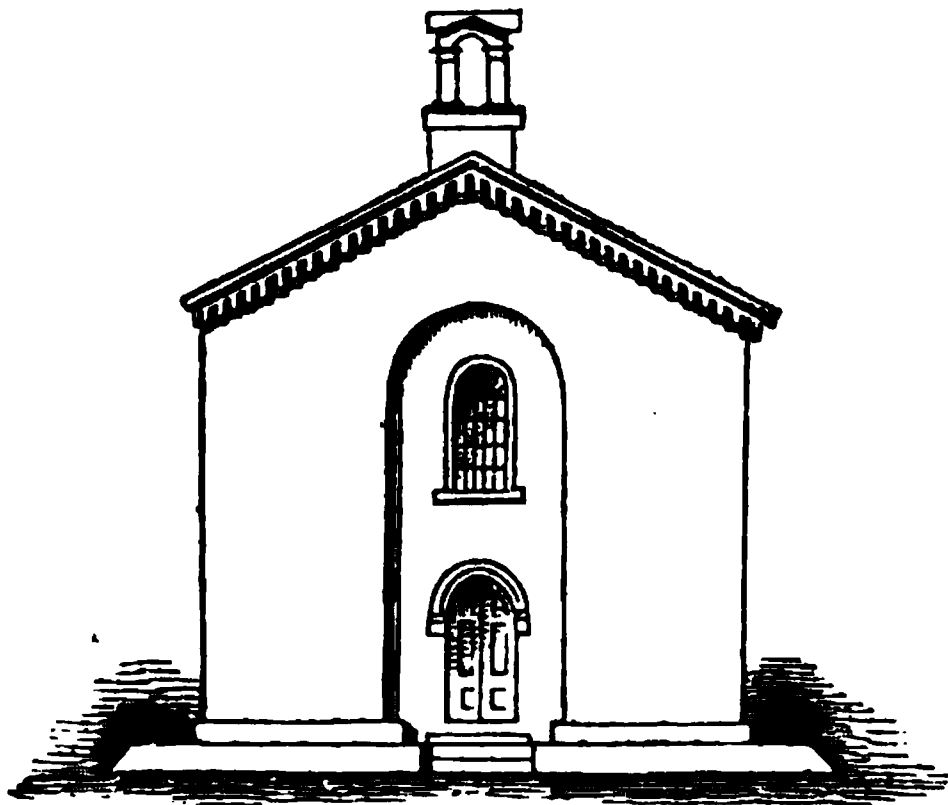
Respectfully submitted.

N. BISHOP,
Superintendent of Public Schools.

PROVIDENCE, August, 1846.

Since the foregoing Report was published, important alterations have been made in several of the Grammar and Primary School-houses of Providence. In the Grammar School-houses, a projection of the same size and in the same relative position as that in front of the building, is carried up in the rear so as to secure two additional rooms for recitation on the second floor, and one for each school-room on the first. A second story has been added to the Primary School-houses, so as to accommodate a large number of pupils, and secure a better classification of the same. The Superintendent, than whom no one in the country has a better scientific and practical knowledge of the subject, has devised a plan of ventilation, at once cheap and thorough, which will be carried out as soon as means for this purpose are placed at the disposal of the School Committee by the City Council.

The following cut presents a front elevation of one of the new Intermediate School-houses in Providence, designed by Mr. Telf.



The only private school edifice in Providence which can be compared with the Public School-houses, is a beautiful structure erected by Mr. John Kingsbury, at his own expense, after plans of Mr. Telf, for the accommodation of a school of forty girls. This house is a perfect gem in school architecture, and no young lady can be educated within its walls without receiving not only the benefit of its every appliance for health, comfort and neatness, but at the same time, some advancement in esthetical culture from the exhibition of taste all around her.

The improvements in education, introduced by Mr. Kingsbury in his private school from 1826 to 1838, prepared the way for improvements in the organization and instruction of the public schools, and the improvement of the latter since 1840, have made it necessary for Mr. Kingsbury to take and maintain still higher ground. Mr. Kingsbury has always given his best efforts to improve the public schools.

PUBLIC HIGH SCHOOL.

In the preceding pages we have presented a variety of plans for the construction and internal arrangements of buildings designed and erected for Public High Schools. Whenever and wherever the interest of the community can be sufficiently awakened to call for a public school of the grade generally understood by the term High School, there will be no difficulty in raising the funds necessary to erect and furnish a suitable edifice for the accommodation of the school. It may not, then, be amiss in this place to present a few considerations and facts bearing upon the establishment of a school of this grade in every large village and city in our country.

By a Public or Common High School, is intended a public or common school for the older and more advanced scholars of the community in which the same is located, in a course of instruction adapted to their age, and intellectual and moral wants, and, to some extent, to their future pursuits in life. It is common or public in the same sense in which the district school, or any lower grade of school established and supported under a general law and for the public benefit, is common or public. It is open to all the children of the community to which the school belongs, under such regulations as to age, attainments, &c., as the good of the institution may require, or the community may adopt. A Public High School is not necessarily a free school. It may be supported by a fund, a public tax, or an assessment or rate of tuition per scholar, or by a combination of all, or any two of these modes. Much less is it a public or common school in the sense of being cheap, inferior, ordinary. To be truly a public school, a High School must embrace in its course of instruction studies which can be more profitably pursued there than in public schools of a lower grade, or which gather their pupils from a more circumscribed territory, and as profitably as in any private school of the same pretensions. It must make a good education common in the highest and best sense of the word common—common because it is good enough for the best, and cheap enough for the poorest family in the community. It would be a mockery of the idea of such a school, to call it a Public High School, if the course of instruction pursued in it is not higher and better than can be got in public schools of a lower grade, or if it does not meet the wants of the wealthiest and best educated families, or, if the course of instruction is liberal and thorough, and at the same time the worthy and talented child of a poor family is shut out from its privileges by a high rate of tuition. The school, to be common practically, must be both cheap and good. To be cheap, its support must be provided for wholly or mainly out of a fund, or by public tax. And to justify the imposition of a public tax, the advantages of such a school must accrue to the whole community. It must be shown to be a common benefit, a common interest, which cannot be secured so well, or at

all, except through the medium of taxation. What, then, are the advantages which may reasonably be anticipated from the establishment of a Public High School, properly organized, instructed, and supervised?

First. Every thing which is now done in the several district schools, and schools of lower grade, can be better done, and in a shorter time, because the teachers will be relieved from the necessity of devoting the time and attention now required by few of the older and more advanced pupils, and can bestow all their time and attention upon the preparatory studies and younger children. These studies will be taught in methods suited to the age and attainments of the pupils. A right beginning can thus be made in the lower schools, in giving a thorough practical knowledge of elementary principles, and in the formation of correct mental and moral habits, which are indispensable to all sound education. All this will be done under the additional stimulus of being early and thoroughly fitted for the High School.

Second. A High School will give completeness to the system of public instruction which may be in operation. It will make suitable provision for the older and more advanced pupils of both sexes, and will admit of the methods of instruction and discipline which cannot be profitably introduced into the schools below. The lower grade of schools—those which are established for young children,—require a large use of oral and simultaneous methods, and a frequent change of place and position on the part of the pupils. The higher branches, especially all mathematical subjects, require patient application and habits of abstraction on the part of the older pupils, which can with difficulty, if at all, be attained by many pupils amid a multiplicity of distracting exercises, movements, and sounds. The recitations of this class of pupils, to be profitable and satisfactory, must be conducted in a manner which requires time, discussion, and explanation, and the undivided attention both of pupils and teacher. The course of instruction provided in the High School will be equal in extent and value to that which may be given in any private school, academy, or female seminary in the place, and which is now virtually denied to the great mass of the children by the burdensome charge of tuition.

As has been already implied, the advantages of a High School should not be confined to the male sex. The great influence of the female sex, as daughters, sisters, wives, mothers, companions, and teachers, in determining the manners, morals, and intelligence of the whole community, leaves no room to question the necessity of providing for the girls the best means of intellectual and moral culture. The course of instruction should embrace the first principles of natural and mechanical philosophy, by which inventive genius and practical skill in the useful arts can be fostered; such studies as navigation, book-keeping, surveying, botany, chemistry, and kindred studies, which are directly connected with success in the varied departments of domestic and inland trade, with foreign commerce, with gardening, agriculture, the manufacturing and domestic arts;

such studies as astronomy, physiology, the history of our own state and nation, the principles of our state and national constitutions, political economy, and moral science; in fine, such a course of study as is now given in more than fifty towns and cities in New England, and which shall prepare every young man, whose parents may desire it, for business, or for college, and give to every young woman a well disciplined mind, high moral aims, refined tastes, gentle and graceful manners, practical views of her own duties, and those resources of health, thought, conversation, and occupation, which bless alike the highest and lowest station in life. When such a course is provided and carried out, the true idea of the High School will be realized.

Third. It will equalize the opportunities of a good education, and exert a happy, social influence throughout the whole community from which it gathers its scholars. From the want of a public school of this character, the children of such families as rely exclusively on the district school are isolated, and are condemned to an inferior education, both in quality and quantity; they are cut off from the stimulus and sympathy which the mingling of children of the same age from different parts of the same community would impart. The benefits, direct and indirect, which will result to the country districts, or poor families who live in the outskirts of the city, from the establishment of a school of this class, cannot easily be overestimated. The number of young men and young women who will receive a thorough education, qualifying them for business, and to be teachers, will increase from year to year; and the number who will press up to the front ranks of scholarship in the school, bearing away the palm of excellence by the vigor of sound minds in sound bodies, of minds and bodies made vigorous by long walks and muscular labor in the open air, will be greater in proportion to their number than from the city districts. It will do both classes good, the children of the city, and the children of the country districts, to measure themselves intellectually in the same fields of study, and to subject the peculiarities of their respective manners, the roughness and awkwardness sometimes characteristic of the one, and the artificiality and flippancy of the other, to the harmonizing influence of reciprocal action and reaction. The isolation and estrangement which now divide and subdivide the community into country and city clans, which, if not hostile, are strangers to each other, will give place to the frequent intercourse and esteem of individual and family friendship, commenced in the school-room, and on the play-ground of the school. The school will thus become a bond of union, a channel of sympathy, a spring-head of healthy influence, and stimulus to the whole community.

Fourth. The privileges of a good school will be brought within the reach of all classes of the community, and will actually be enjoyed by children of the same age from families of the most diverse circumstances as to wealth, education, and occupation. Side by side in the same recitations, heart and hand in the same sports, pressing up together to the same high attainments in knowledge and character, will be found the children of the rich and poor, the more and the

less favored in outward circumstances, without knowing or caring to know how far their families are separated by the arbitrary distinctions which divide and distract society. With nearly equal opportunities of education in childhood and youth, the prizes of life, its best fields of usefulness, and sources of happiness will be open to all, whatever may have been their accidents of birth and fortune. From many obscure and humble homes in the city and in the country, will be called forth and trained inventive talent, productive skill, intellectual taste, and God-like benevolence, which will add to the general wealth, multiply workshops, increase the value of farms, and carry forward every moral and religious enterprise which aims to bless, purify, and elevate society.

Fifth. The influence which the annual or semi-annual examination of candidates for admission into the High School, will operate as a powerful and abiding stimulus to exertion throughout all the lower schools. The privileges of the High School will be held forth as the reward of exertion in the lower grade of schools; and promotion to it, based on the result of an impartial examination, will form an unobjectional standard by which the relative standing of the different schools can be ascertained, and will also indicate the studies and departments of education to which the teachers in particular schools should devote special attention. This influence upon the lower schools, upon scholars and teachers, upon those who reach, and those who do not reach the High School, will be worth more than all it costs, independent of the advantages received by its pupils.

Sixth. While the expenses of public or common schools will necessarily be increased by the establishment of a school of this class, in addition to those already supported, the aggregate expenditures for education, including public and private schools, will be diminished. Private schools of the same relative standing will be discontinued for want of patronage, while those of a higher grade, if really called for by the educational wants of the community, will be improved. A healthy competition will necessarily exist between the public and private schools of the highest grade, and the school or schools which do not come up to the highest mark, must go down in public estimation. Other things being equal, viz., school-houses, teachers, classification, and the means and appliances of instruction, the public school is always better than the private. From the uniform experience of those places where a High School has been established, it may be safely stated, that there will be an annual saving in the expenses of education to any community, equal to one half the amount paid for tuition in private schools, and, with this saving of expense, there will be a better state of education.

Seventh. The successful establishment of a High School, by improving the whole system of common schools, and interesting a larger number of families in the prosperity of the schools, will create a better public sentiment on the subject than has heretofore existed, and the schools will be regarded as the common property, the common glory, the common security of the whole community. The wealthy will feel that the small additional tax required to establish

and sustain this school, if not saved to them in the diminished tuition for the education of their own children in private schools, at home and abroad, is returned to them a hundred fold in the enterprise which it will quicken, in the increased value given to property, and in the number of families which will resort to the place where it is located, as a desirable residence, because of the facilities enjoyed for a good education. The poor will feel that, whatever may betide them, their children are born to an inheritance more valuable than lands or shops, in the free access to institutions where as good an education can be had as money can buy at home or abroad. The stranger will be invited to visit not only the institutions which public or individual benevolence has provided for the poor, the orphan, the deaf mute, and the criminal, but schools where the children and youth of the community are trained to inventive and creative habits of mind, to a practical knowledge of the fundamental principles of business, to sound moral habits, refined tastes, and respectful manners. And in what balance, it has well been asked in reference to the cost of good public schools, as compared with these advantages, shall we weigh the value of cultivated, intelligent, energetic, polished, and virtuous citizens? How much would a community be justified in paying for a physician who should discover or practice some mode of treatment through which many lives should be preserved? How much for a judge, who, in the able administration of the laws, should secure many fortunes, or rights more precious than fortunes, that might else be lost? How much for a minister of religion who should be the instrument of saving hundreds from vice and crime, and persuading them to the exertion of their best powers for the common good? How much for the ingenious inventor, who, proceeding from the first principles of science onward, should produce some improvement that should enlarge all the comforts of society, not to say a steam-engine or a magnetic telegraph? How much for the patriotic statesman, who, in difficult times, becomes the savior of his country? How much for the well-instructed and enterprising merchant who should suggest and commence the branches of business that should bring in a vast accession of wealth and strength? One such person as any of these might repay what a High School would cost for centuries. Whether, in the course of centuries, every High School would produce one such person, it would be useless to prophesy. But it is certain that it would produce many intelligent citizens, intelligent men of business, intelligent servants of the state, intelligent teachers, intelligent wives and daughters, who, in their several spheres, would repay to any community much more than they and all their associates had received. The very taxes of a town, in twenty years, will be lessened by the existence of a school which will continually have sent forth those who were so educated as to become not burdens but benefactors.

These results have been realized wherever a Public High School has been opened under circumstances favorable to the success of a private school of the same grade,—wherever a good school-house, good regulations, (for admission, attendance, studies, and books,) good teachers, and good supervision have been provided.

The Principal of the Latin High School of Boston, in a letter written 1846, says,—

“There is no institution so truly republican as such a school as this. While we, the present teachers, were undergraduates of the school, the rich sent their sons to the school because it was the best that could be found. They ascertained that it was not a source of contamination, but that their boys learned here to compare themselves with others, and to feel the necessity of something more than mere *wealth* to gain consideration. At that time, poor men sent their sons hither because they knew that they here would get that education which they could afford to give them in no other way. They gained too by intercourse with their wealthier mates a polish of exterior manners, and an intellectual turn of mind which their friends could appreciate and perceive, although they could not tell what it was that had been acquired. Oftentimes also the poor boy would take the lead of his more pampered classmate, and take the honors of the school.

In a class lately belonging to the school were two boys, one the son of a man of extreme wealth, whose property cannot be less than \$500,000; and the other the son of an Irish laborer employed by the city at a dollar a day to sweep the streets. The latter boy was the better scholar.”

The Principal of the English High School in a letter writes,—

“The school under my charge is principally composed of what are called the middling classes of our city. At present, about one third of my pupils are sons of merchants; the remaining two thirds are sons of professional men, mechanics and others. Some of our best scholars are sons of coopers, lamplighters, and day laborers. A few years ago, he who ranked, the last year of his course, as our third scholar, was the son of a lamplighter, and worked three nights per week, during his whole course, to save his father the expense of books, &c., while at school. This year my second (if not the first,) scholar, is a cooper's son. We have several sons of clergymen of distinction and lawyers of eminence. Indeed, the school is a perfect example of the poor and the rich, meeting on common ground and on terms quite democratic.

The Principal of the High School for girls in Newburyport, writes,

“The Female High School was established by the town of Newburyport nearly three years since, under great opposition. It was the desire of its principal advocates to make it such a school, in respect to the course of instruction, and facilities for acquiring knowledge, and laying the foundation for usefulness, as should so successfully compete with our best private schools, as to supersede their necessity.”

“A few days after we were organized, a gentleman came into the school-room to make some inquiries respecting the classes of society most fully represented amongst us. I was totally unable to give him the desired information, and judging from the appearance of the individuals of my charge, I could form no idea as to who were the children of poor parents, or of those in better circumstances. I mentioned the names of the parents of several, which I had just taken, and, amongst others, of two young ladies of seventeen or eighteen years of age, who, at that moment, it being recess, were walking down the room, with their arms closely entwined about each other's necks. ‘The first of the two,’ said the gentleman, ‘is a daughter of one of our first merchants, the other has a father worse than none, who obtains a livelihood from one of the lowest and most questionable occupations, and is himself most degraded.’ These two young ladies were classmates for more than two years, and very nearly equal in scholarship. The friendship they have formed, I am confident no circumstances of station in life can ever impair.

“We have had in our number many from the best families, in all respects, in the place. They sit side by side, they recite, and they associate most freely with those of the humblest parentage, whose widowed mothers, perhaps, toil day after day, at a wash-tub, without fear of contamination, or, as I honestly believe, a thought of the differences which exist. I have, at present, both extremes under my charge—the child of affluence and the child of low parentage and deep poverty. As my arrangements of pupils in divisions, &c. are, most of them, alphabetical, it often happens that the two extremes are brought together. This never causes a murmur, or look of dislike.

A member of the School Committee of Worcester, Mass., writes :

"Our High School is exceedingly popular with all classes, and in the school-rooms and on the play-grounds, the children of the richest and poorest mingle with perfect equality. No assumption,—no jealousy are seen among them. I have been charmed with this republican and Christian character of the school. I have seen the children of parents whose wealth was estimated by hundreds of thousands, in the same school-room with children (and those last among the best scholars of their class) whose parents have been assisted year after year by individual charity. The manners, habits, and moral sentiments of this school are as pure and high as in any academy, or female seminary of the same grade in the commonwealth.

"To the improvements of our public schools, which has been going steadily forward since 1825, does this town owe more of its prosperity, its large accession of families from abroad, especially of industrious and skillful mechanics, than to all other causes combined. As a mere investment of capital, men of wealth everywhere cannot do better with a portion of their property than to build elegant and attractive school-houses, and open in them free schools of the highest order of instruction. They will then see gathering around them men, it may be, of small means, but of practical skill, and moral and industrious habits; that class of families who feel that one of the great ends of life is to educate their children well."

A correspondent from Brattleboro', Vt., writes:

"In the same school-room, seated side by side, according to age and attainments, are eighty children, representing all classes and conditions in society. The lad or miss, whose father pays a school tax of thirty-five dollars, by the side of another whose expense of instruction is five cents *per annum*. They play cordially and happily on the same grounds, and pursue the same studies—the former frequently incited by the native superiority and practical good sense of the latter. While the contact corrects the factitious gentility and false ideas of superiority in the one, it encourages cleanliness and good breeding in the other."

The history of the High School in Providence is the history of almost every similar institution.

"The High School was the only feature of our system which encountered much opposition. When first proposed, its bearings on the schools below, and in various ways on the cause of education in the city, was not clearly seen. It was opposed because it was "aristocratic," "because it was unconstitutional to tax property for a city college," "because it would educate children above working for their support," "because a poor boy or girl would never be seen in it"—and for all such contradictory reasons. Before it became a part of the system, the question of its adoption, or rejection, was submitted directly to the people, who passed in its favor by a vote of two thirds of all the legal voters of the city. Even after this expression of popular vote in its favor, and after the building for its accommodation was erected, there was a considerable minority who circulated a petition to the City Council against its going into operation. But the school was opened, and now it would be as easy to strike out the whole or any other feature of the system as this. Its influence in giving stimulus and steadiness to the workings of the lower grade of schools,—in giving thoroughness and expansion to the whole course of instruction,—in assisting to train teachers for our city and country schools,—and in bringing together the older and more advanced pupils, of either sex, from families of every profession, occupation and location in the city, many of whom, but for the opportunities of this school, would enter on the business and duties of life with an imperfect education—has demonstrated its own usefulness as a part of the system, and has converted its opponents into friends."

Testimony of the same character might be adduced from Philadelphia, Lowell, New Orleans, and every place where a school of this grade has been established.

PLANS OF SCHOOL-HOUSES WITH APARTMENTS FOR THE TEACHER.

In the "Series of Plans for School-houses," published by the Committee of Council on Education, for the benefit of such schools as apply for the benefit of the Parliamentary Grant for promoting Public Education in Great Britain, provision is uniformly made for apartments, or a dwelling-house, for the master. This would be a wise and economical arrangement in connection with our district and village school-houses. The property of the district would be better cared for, and more of permanence and character would soon attach to the employment of teaching, if suitable apartments in the same building were provided for the teacher. We do not propose at this time to present any plan, framed in reference both to the accommodation of the school and of the teacher, but have made the foregoing statement as explanatory of some peculiarities in the following plans, copied mostly from the work above referred to. Our object in giving the following plans is to introduce committees and others to a different style of architecture than has thus far been adopted in structures of this kind. It will not be difficult for any one familiar with drafting plans to adapt this style to the particular wants of any district or village.

No. 1. This plan contemplates a school-room 22 by 15 feet for 30 children, with apartments for the master consisting of one sitting-room, (13 by 10) one bedroom, (10 by 10,) and a kitchen (12 by 6,) with two closets (6 by 6 each) attached. These arrangements are limited to the strictest simplicity. The small window in the wing or projection lights the master's bed-room. In all the plans an independent entrance into the master's apartment is provided, and the yards are also distinct.

No. 2. In this plan the school-room is 29 feet by 18, with two lobbies, and a closet in the rear, each 6 feet by 4, and will accommodate 56 pupils. The arrangements for the master are the same as the above.

No. 3. In this plan the school room is 36 feet by 18, and will accommodate 80 children—with separate lobby, or entry for girls and boys, each 4 feet by 12, and a closet of the same size. The master's apartments are the same in number as in No. 1, but each room is 12 feet by 12. The master's desk is between the windows in the front elevation.

No. 4. In this plan there are two school-rooms, each 28 feet by 16, and capable of accommodating 55 pupils, with a lobby 12 feet by 5 on each side, into which the door represented on the side elevation opens. Between the lobbies are the master's bedroom and sitting room, each 13 feet by 12, and back of them a second bedroom, and the kitchen, each 12 feet by 9. The teacher's platform and desk in each room is against the windows, which are painted in imitation of ground glass.

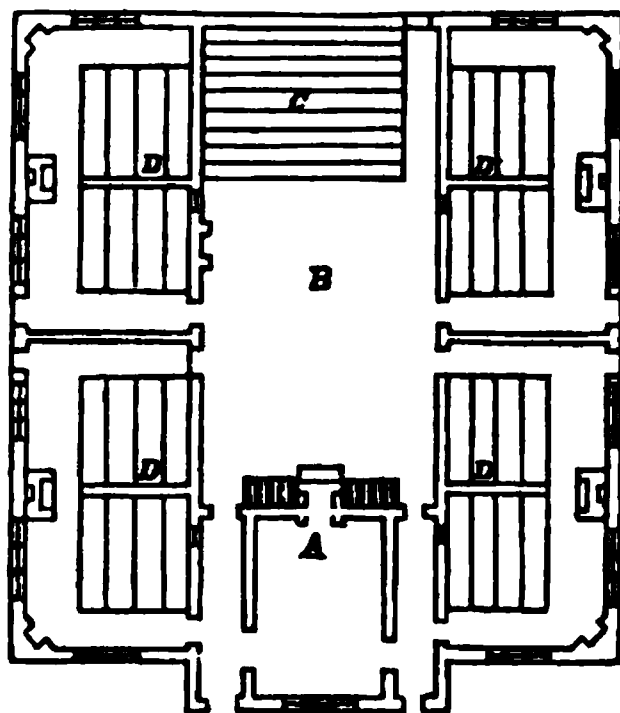
No. 5. The plan of which this is the front elevation, contemplates a school-room 48 feet by 19, for 112 children, to be taught by one master and two pupil teachers. The classes are separated by a screen extending from the rear of the room to the teacher's platform.

No. 6. This plan is designed to accommodate 394 pupils—150 belonging to an Infant or Primary department. The arrangement for the schools consists of a large hall in the centre, 40 feet by 24, which is occupied by the Infant school, and two rooms, each 32 by 18 feet—one of which occupies the wing on the left, and the other being back, of the hall. The hall is employed every morning and evening for prayers, and other exercises, in which the whole school can engage.

The master's house contains a sitting-room, two bedrooms, kitchen, &c. and occupies the right wing of the building.

No 7. This plan is intended to accommodate the Infant or Primary school, of 150 pupils, in a large hall in the main building, (the front of which on the first floor is occupied by the master's sitting room, with

a flight of stairs leading to his other departments in the second story. in the basement) and 300 or 400 pupils in four class-rooms, as shown in the accompanying drawing on a reduced scale. The Hall, B, is 54 feet by 27, in which the infant school is taught, and where the whole school is assembled for religious and other general exercises. Each of the four class-rooms D, each 19 feet by 17, is divided into two rooms by a screen, both of which is under the supervision of an assistant teacher, who is aided in instruction by one pupil teacher.



No. 8. This plan is designed for an infant school of 223 pupils. The entrance to the school is by the porch lighted by a small window, attached to a slight projection on the left, with the end towards the spectator. The entrance to the apartments of the teacher is by the other porch at the extreme right.

Nos. 9 and 10. These plans, of which the elevations only are given, will accommodate each three schools—one for 150 boys, and another for the same number of girls, and a third for a school of 150 infants.

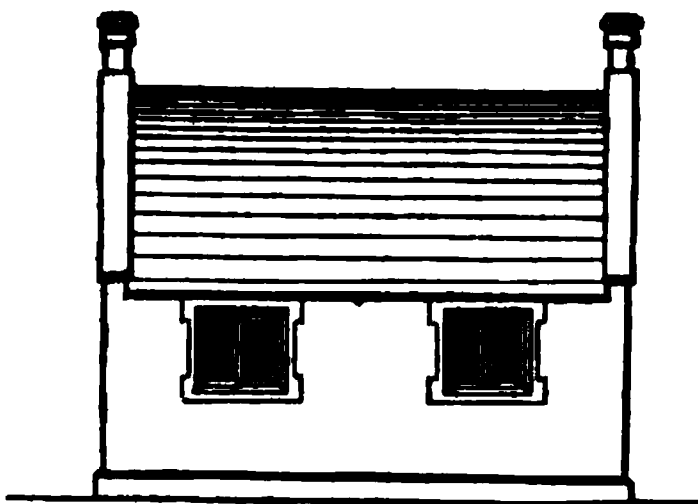
No. 11. The plan of which a front elevation is given on page 268, will accommodate three schools (in all 436 pupils) on the same floor, and two families. Two of the school-rooms are in a projection extending back 60 feet in the rear of the centre of the main building.

Nos. 12 and 13. These elevations are given to show how this style of architecture can be adapted to buildings of two stories.

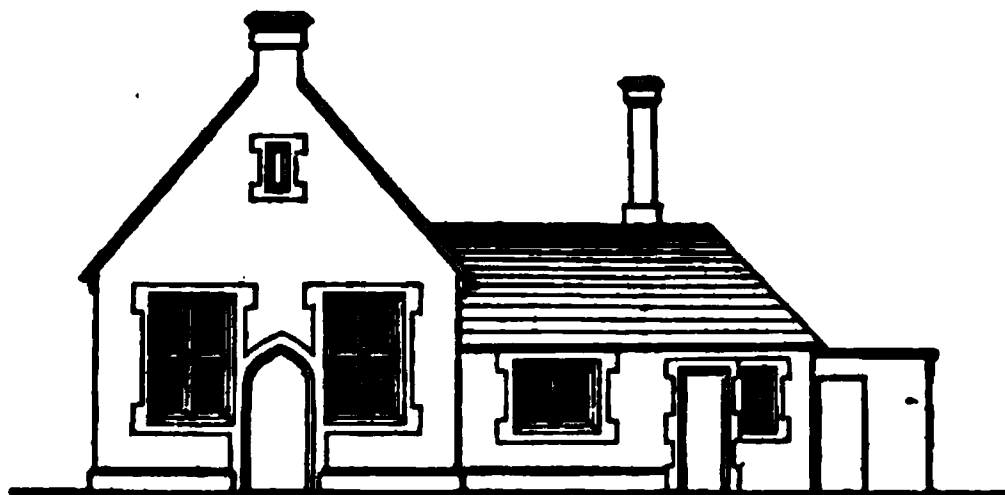
No. 14. Plan of the Willesdon School, drawn and published by H. E. Kendall, Jr. This house will accommodate two schools, one for eighty boys and the other for the same number of girls, each wing entered from the side, with apartments for the teacher entered by the porch in the centre. The building is in the mixed Tudor style, and is built of brick. The plinths to the porches are of stone, and the window copings, cornice and ornaments are executed in cement. The wood-work is finished to imitate oak. The whole cost less than \$2000.

This plan is taken from "*Designs for Schools and School-houses*, by H. E. Kendall, Jr., London," in which the Architect has aimed to apply the principles of Mediæval Architecture, as developed in the ecclesiastical and collegiate buildings of England and the Low Countries, to village schools. The work referred to, contains six designs, modelled after schools erected by the author,—all mediæval in character, and all combining ornament with simplicity. It is to be hoped that our architects will avail themselves of the opportunity now presented, in the increased and increasing attention paid all over the country to the establishment and improvement of public schools of every grade, to promote a taste for the propriety and beauty of their art, by throwing something of comeliness over the humblest structure designed for the education of childhood and youth, and thus creating and stimulating the growing taste of the community for the study of Architecture.

PLAN—No. 1. FRONT ELEVATION.



PLAN—No. 1. SIDE ELEVATION.



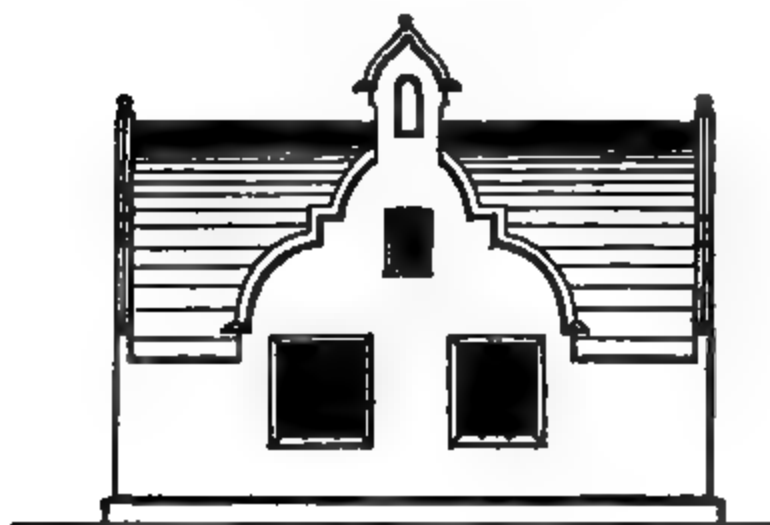
PLAN—No. 2. FRONT ELEVATION.



PLAN—No. 2. SIDE ELEVATION.



PLAN—No. 3. FRONT ELEVATION.



PLAN—No. 3. SIDE ELEVATION.



PLAN—No. 4. FRONT ELEVATION.

PLAN—No. 4. SIDE ELEVATION.

PLAN—No. 5. FRONT ELEVATION.



PLAN—No. 7. FRONT ELEVATION.



PLATE--No. 6 FRONT ELEVATION.

PLATE--No. 2. Front Elevation.

PLAN—No. 2. FRONT ELEVATION.

THE UNIVERSITY OF CHICAGO

PLAN--NO. 11. FRONT ELEVATION.

PLAN—No. 12. FRONT ELEVATION.

PLAN—No. 13. FRONT ELEVATION.



PLAN—No. 14. FRONT ELEVATION.

TEACHERS' DESKS.

Much ingenuity has been expended recently in devising and constructing Teachers' Desks. Some of them are very simple, being a plain table with one or two drawers,—some with the top inclined, and others with the top level;—some with a desk in the centre and a set of drawers on each side; and others, with drawers only on one side; some with the front finished in a library case, and the lower shelf extending into the platform so as to be deep enough to receive large maps and diagrams.

This (No. 1.) is a style of Teacher's Desk manufactured by STEPHEN SMITH, 44 Cornhill, Boston, which is very generally used in the schools of Boston and vicinity. It is made of cherry or mahogany, and 5 ft. long by 2 ft. 6 inches wide—with a level top, covered with cloth, and with drawers on each side, leaving an open space for the teacher's feet. The front next to the school is neatly finished.

No. 1.

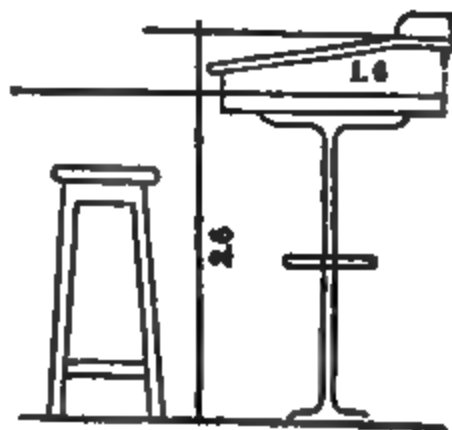
No. 2 represents a desk 3 feet long by 2 feet wide, made generally, in style and material, like No. 1, except that one half of the top is flat, and the other half inclined.

No. 2.

We have had a desk resembling this constructed with a drawing board, of nearly the same size of the top of the desk, inserted like a drawer immediately below it; and also with a large slate, on which the teacher could enter all minutes, memoranda, &c., inserted on the right immediately over the drawers represented in the cut. The front of either of these desks could be neatly finished in a case, with shelves to receive the books of reference, where they could be conveniently consulted, and also protected from the dust.

No. 3 is a style of movable desk and stool, on a platform raised six inches from the floor, recommended in the *Minutes of the Committee of Council on Education*. The standard is of iron with a shelf below the desk.

No. 3.



PLANS AND DESCRIPTIONS OF SCHOOL-HOUSES, RECENTLY ERECTED
IN RHODE ISLAND.

By the school law of Rhode Island, as revised in 1845, a school district cannot receive its distributive share of any appropriation made by the State, or the town in which the district is located, for the support of public schools, unless such district has complied with the requirements of the law, and, among other things, unless one or more public schools have been taught in the district by a teacher properly qualified, in *a school-house approved by the school committee of the town*. To enable the districts to comply with this provision of the law, the general power of taxation, for this and other school purposes, is conferred on a majority of the legal voters of every school district. To protect the property of a minority, and especially of non-residents, from an abuse of this power, and, at the same time, to secure a suitable school-house for the district, the amount of tax to be levied, and the location, and plan of the school-house must be approved beforehand by the school committee of the town, or the Commissioner of Public Schools for the State. It is also made the duty of the State Commissioner, "to diffuse, as widely as possible, by public addresses, and personal communication with school officers, teachers, and parents, a knowledge of existing defects, and desirable improvements in the administration of the school system." Under these provisions much has been done towards furnishing the public schools with spacious, attractive, and convenient school-houses. Prior to 1844, there was not a public school-house in the State, out of Providence, which could be pointed to as a model in the essential features of such a structure. In one half of the towns, the public schools were taught in buildings owned by proprietors, many of which were erected, originally, for other purposes, and all of them were unfit for children at school; they were badly located, small, inconvenient, and dilapidated. The attention of parents and school officers was early, earnestly, and perseveringly called to the almost necessary connection between a good school-house and a good school, and to the immense injury done to the comfort and health of children by the too common neglect of ventilation, temperature, and furniture of school-rooms. The subject was introduced into every public address, as a preliminary step in the work of educational improvement. Six thousand pamphlets, containing a variety of plans of school-houses for large and small districts, and for schools of different grades, were scattered over the State. Plans and details of construction were gratuitously furnished to builders and committees. Efforts were made to get up at least one model house in each county, in which the true principles of school architecture should be carried out, and could be seen. Men of wealth and intelligence in the large districts were seen and interested in the erection of new and commodious structures, which should be ornamental to their villages, and attractive and comfortable to the children. School committees were instructed to withhold the public

money from districts whose houses should be considered by them as not *school-worthy*.

The results have fully justified the practicability of these and other efforts—a complete renovation, nay, a revolution, having passed over the school-houses of this State. Old, dilapidated, repulsive, inconvenient houses having given place to new, neat, attractive and commodious structures, in a majority of the districts. Liberal appropriations have been freely voted; and men of business and taste have accepted the supervision of the expenditure. Rhode Island can now boast of more good school-houses, and fewer poor ones, in proportion to the whole number, than any other State—more than one hundred and fifty thousand dollars having been voluntarily voted for this purpose in less than three years, not including the city of Providence. The few poor houses which remain, if they can resist much longer the attacks of the elements, cannot stand up against the accumulating weight of public condemnation.

In the following pages will be found plans and descriptions of a few of the best school-houses, which have been recently erected in Rhode Island, for schools of different grades. They are not presented as faultless specimens of school-architecture, but as embracing, each, some points of excellence, either in style, construction, or arrangement.

Although the author of this treatise, as Commissioner of Public Schools for Rhode Island, was consulted in almost every instance by the local building committee, and was always gratified in having opportunities to furnish plans, or make suggestions—yet he was seldom able to persuade the committee, or the carpenters, to carry out his plans and suggestions thoroughly. Something would be taken from the height, or the length, or the breadth;—some objections would be made to the style of the exterior or the arrangement of the interior;—the plans recommended for securing warmth and ventilation were almost invariably modified, and in very many instances entirely neglected. He desires, therefore, not to be held responsible for the details of any one house, as it now stands—for being thus held responsible, he should probably receive credit for improvements which others are as much entitled to as himself, and should in more instances be held accountable for errors of taste, and deficiencies in internal arrangements, against which he protested with those having charge of the building. But with some reservation, most of the school-houses recently erected in Rhode Island can be pointed to as embracing many improvements in school architecture. To Mr. Thomas A. Test, of Providence, much credit is due for the taste which he has displayed in the designs furnished by him, and for the elevations which he drew for plans furnished or suggested by the Commissioner. He should not, however, be held responsible for the alterations made in his plans by the committees and carpenters having charge of the erection of the buildings after plans furnished by him.

The following are among the features which the Commissioner has

endeavored to secure in the best class of school edifices, respecting the location, or plan of which he was consulted, or called upon officially to act :

1. A location, healthy, accessible from all parts of the district; retired from the dust, noise, and danger of the highway; attractive, from its choice of sun and shade, and commanding, in one or more directions, the cheap, yet priceless educating influences of fine scenery.

2. A site large enough to admit of a yard in front of the building, either common to the whole school or appropriated to greensward, flowers and shrubbery, and two yards in the rear, one for each sex, properly inclosed, and fitted up with rotary swings, and other means of recreation and exercise, and with privies, which a civilized people never neglect.

3. Separate entrances to the school-room for each sex; each entrance distinct from the front door, and fitted up with scraper, mats, and old broom for the feet; with hooks, shelves, &c., for hats, overcoats, over-shoes, and umbrellas; with sink, pump, basin and towels, and with brooms and duster, and all the means and appliances necessary to secure habits of order, neatness and cleanliness.

4. School-room, in addition to the space required by aisles and the teacher's platform, sufficient to accommodate with a seat and desk, not only each scholar in the district who is in the habit of attending school, but all who may be entitled to attend; with verge enough to receive the children of industrious, thoughtful, and religious families, who are sure to be attracted to a district which is blessed with a good school-house and a good school.

5. At least one spare room for recitation, library, and other uses, to every school-room, no matter how small the school may be.

6. An arrangement of the windows, so as to secure one blank wall, and at the same time, the cheerfulness and warmth of the sunlight, at all times of the day, with arrangements to modify the same by blinds, shutters, or curtains.

7. Apparatus for warming, by which a large quantity of pure air from outside of the building can be moderately heated, and introduced into the room without passing over a red-hot iron surface, and distributed equally to different parts of the room.

8. A cheap, simple, and efficient mode of ventilation, by which the air in every part of a school-room, which is constantly becoming vitiated by respiration, combustion, or other causes, may be constantly flowing out of the room, and its place filled by an adequate supply of fresh air drawn from a pure source, and admitted into the room at the right temperature, of the requisite degree of moisture, and without any perceptible current.

9. A desk with at least two feet of top surface, and in no case for more than two pupils, inclined towards the front edge one inch in a foot, except two to three inches of the most distant portion, which should be level, and covered with cloth to prevent noise—fitted with an ink-pot (supplied with a lid and a pen-wiper,) and a slate, with a pencil-holder and a sponge attached, and supported by end-pieces or

stanchions, curved so as to be convenient for sweeping, and to admit of easy access to the seat—these of varying heights for small and large pupils, the front edge of each desk being from seven to nine inches (seven for the lowest and nine for the highest,) higher than the front edge of the seat or chair attached.

10. A chair or bench for each pupil, and in no case for more than two, unless separated by an aisle, with a seat hollowed like an ordinary chair, and varying in height from ten to seventeen inches from the outer edge to the floor, so that each pupil, when properly seated, can rest his feet on the floor without the muscles of the thigh pressing hard upon the front edge of the seat, and with a support for the muscles of the back, rising above the shoulder-blades.

11. An arrangement of the seats and desks, so as to allow of an aisle or free passage of at least two feet around the room, and between each range of seats for two scholars, and so as to bring each scholar under the supervision of the teacher.

12. Arrangements for the teacher, such as a separate closet for his overcoat, &c., a desk for his papers, a library of books of reference, maps, apparatus, and all such instrumentalities by which his capacities for instruction may be made in the highest degree useful.

13. Accommodations for a school library for consultation and circulation among the pupils, both at school and as a means of carrying on the work of self-education at their homes, in the field, or the workshop, after they have left school.

14. A design in good taste and fit proportion, in place of the wretched perversions of architecture, which almost universally characterize the district school-houses of New England.

15. While making suitable accommodation for the school, it will be a wise, and, all things considered, an economical investment, on the part of many districts, to provide apartments in the same building, or in its neighborhood, for the teacher and his family. This arrangement will give character and permanence to the office of teaching, and at the same time secure better supervision for the school-house and premises, and more attention to the manners of the pupils out of school. Provision for the residence of the teacher, and not unfrequently a garden for his cultivation, is made in connection with the parochial schools in Scotland, and with the first class of public schools in Germany.

16. Whenever practicable, the privies should be disconnected from the play-ground, and be approached from a covered walk. Perfect seclusion, neatness and propriety should be strictly observed in relation to them.

17. A shed, or covered walk, or the basement story paved under feet, and open for free circulation of air for the boys, and an upper room with the floor deafened and properly supported for calisthenic exercises for the girls, is a desirable appendage to every school.

As many of the houses described are provided with very inadequate means of warming and ventilation, the following summary of the principles, which ought to be regarded in all arrangements for

these objects, is given as the result of much observation, reflection, and experience.

1. The location of the school-house must be healthy, and all causes,—such as defective drains, stagnant water, decaying animal or vegetable substances, and manufactures, whose operations evolve offensive and deleterious gases,—calculated to vitiate the external atmosphere, from which the air of the school-room is supplied, must be removed or obviated.

2. The means provided for ventilation must be sufficient to secure the object, independent of doors and windows, and other lateral openings, which are intended primarily for the admission of light, passage to and from the apartment, and similar purposes. Any dependence on the opening of doors and windows, except in summer, will subject the occupants of the room near such points to currents of cold air when the pores of the skin are open, and when such extreme and rapid changes of temperature are particularly disagreeable and dangerous.

3. Any openings in the ceiling for the discharge of vitiated air into the attic, and hence to the exterior of the building, or by flues carried up in the wall, no matter how constructed or where placed, cannot be depended on for purposes of ventilation, unless systematic arrangements are adopted to effect, in concert with such openings, the introduction and diffusion of a constant and abundant supply of pure air, in the right condition as to temperature and moisture.

4. All stoves, or other heating apparatus, standing in the apartment to be warmed, and heating only the atmosphere of that apartment, which is constantly becoming more and more vitiated by respiration and other causes, are radically defective, and should be altogether, without delay, and forever discarded.

5. Any apparatus for warming pure air, before it is introduced into the school-room, in which the heating surface becomes *red-hot*, or the air is warmed above the temperature of boiling water, is inconsistent with true ventilation.

6. To effect the combined objects of warming and ventilation, a large quantity of moderately heated air should be introduced in such a manner as to reach every portion of the room, and be passed off by appropriate openings and flues, as fast as its oxygen is exhausted, and it becomes vitiated by carbonic acid gas, and other noxious qualities.

7. The size and number of the admission flues or openings will depend on the size of the school-room, and the number of persons occupying the same; but they should have a capacity to supply every person in the room with at least five cubic feet of air per minute. Warm air can be introduced at a high as well as a low point from the floor, provided there is an exhaustive power in the discharging flues sufficient to secure a powerful ascending current of vitiated air from openings near the floor.

8. Openings into flues for the discharge of vitiated air, should be made at such points in the room, and at such distances from the openings for the admission of pure warm air, that a portion of the

warm air will traverse every part of the room, and impart as much warmth as possible, before it becomes vitiated and escapes from the apartment.

These openings can be made near the floor, at points most distant from the admission flues, provided there is a fire draught, or other power operating in the discharging flues, sufficient to overcome the natural tendency of the warm air in the room to ascend to the ceiling; otherwise they should be inserted in or near the ceiling.

Openings at the floor are recommended, not because carbonic acid gas, being heavier than the other elements of atmospheric air, settles to the floor, (because, owing to the law of the diffusion of gases among each other, carbonic acid gas will be found equally diffused through the room,) but because, when it can be drawn off at the floor, it will carry along with it the cold air which is admitted by open doors, and at cracks and crevices, and also the offensive gases sometimes found in school-rooms.

9. All openings, both for the admission and discharge of air, should be fitted with valves and registers, to regulate the quantity of air to pass through them. The quantity of air to be admitted should be regulated before it passes over the heating surface; otherwise, being confined in the air chamber and tubes, the excessive heat will cause much injury to the pipes and the woodwork adjoining.

10. All flues for ventilation, not intended to act in concert with some motive power, such as a fan, a pump, the mechanism of a clock, a fire-draught, a jet of steam, &c., but depending solely on the spontaneous upward movement of the column of warm air within them, should be made large, (of a capacity equal to at least 18 inches in diameter,) tight, (except the openings at the top and bottom of the room;) smooth, (if made of boards, the boards should be seasoned, matched, and planed; if made of bricks, the flue should be round, and finished smooth,) and carried up on the inside of the room, or in the inner wall, with as few angles and deviations from a direct ascent as possible, above the highest point of the roof.

11. All flues for the discharge of vitiated air, even when properly constructed and placed, and even when acting in concert with a current of warm air flowing into the room, should be supplied with some simple, reliable exhaustive power, which can be applied at all seasons of the year, and with a force varying with the demands of the season, and the condition of the air in the apartment.

12. The most simple, economical, and reliable motive power available in most school-houses is heat, or the same process by which the natural upward movements of air are induced and sustained. Heat can be applied to the column of air in a ventilating flue,

1. By carrying up the ventilating flue close beside, or even within the smoke flue, which is used in connection with the heating apparatus.

2. By carrying up the smoke-pipe within the ventilating flue, either the whole length, or in the upper portion only. In a small school-room, the heat from the smoke-pipe carried up for a few feet only in the ventilating flue before it projects above the roof, is a

motive power sufficient to sustain a constant draught of cool and vitiated air, into an opening near the floor.

3. By kindling a fire at the bottom, or other convenient point in the ventilating flue.

If the same flue is used for smoke from the fire, and vitiated air from the apartment, some simple self-acting valve or damper should be applied to the opening for the escape of the vitiated air, which shall close at the slightest pressure from the inside of the flue, and thus prevent any reverse current, or down draught, carrying smoke and soot into the apartment.

4. By discharging a jet of steam, or a portion of warm air from the furnace, or other warming apparatus, directly into the ventilating flue.

Any application of heat by which the temperature of the air in the ventilating flue can be raised above the temperature of the apartment to be ventilated, will cause a flow of air from the apartment to sustain the combustion, (if there is a fire in the flue,) and to supply the partial vacuum in the flue, which is caused by the rarefaction of the air in the same.

In all school buildings, when several apartments are to be ventilated, the most effectual, and, all things considered, the most economical, mode of securing a motive power, is to construct an upright brick shaft or flue, and in that to build a fire, or carry up the smoke-pipe of the stove, furnace, or other warming apparatus; and then to discharge the ventilating flues from the top or bottom of each apartment, into this upright shaft. The fire draught will create a partial vacuum in this shaft, to fill which, a draught will be established upon every room with which it is connected by lateral flues. Whenever a shaft of this kind is resorted to, the flues for ventilation may be lateral, and the openings into them may be inserted near the floor.

13. With a flue properly constructed, so as to facilitate the spontaneous upward movement of the warm air within it, and so placed that the air is not exposed to the chilling influence of external cold, a turncap, constructed after the plan of Emerson's Ejector, or Mott's Exhausting Cowl, will assist the ventilation, and especially when there are any currents in the atmosphere. But such caps are not sufficient to overcome any considerable defects in the construction of the ventilating flues, even when there is much wind.

14. The warming and ventilation of a school-room will be facilitated by applying a double sash to all windows having a northern and eastern exposure.

15. In every furnace, and on every stove, a capacious vessel well supplied with fresh water, and protected from the dust, should be placed.

16. Every school-room should be furnished with two thermometers placed on opposite sides in the room, and the temperature in the winter should not be allowed to attain beyond 68° Fahrenheit at a level of four feet from the floor, or 70° at the height of six feet.

17. The necessity for ventilation in an occupied apartment is not obviated by merely reducing the atmosphere to a low temperature.

PLANS OF SCHOOL-HOUSES WITH ONE SCHOOL-ROOM.

THE largest number of school-houses which are erected with but one school-room, are intended for District, or for Primary Schools.

DISTRICT SCHOOL.

By a District School, in this connection, is understood a public school open to all the children of the district, of both sexes, and of the school age recognized by the practice of the district, or the regulations of the school committee of the town to which such district belongs. It is an unclassified school, and is taught in one apartment, by one teacher, usually without any assistance even from older pupils of the school. It varies in the character of its scholars, and its methods of instruction, from summer to winter, and from winter to summer. In summer, the younger children and classes in the elementary studies predominate, and in the winter the older pupils, and classes in the more advanced studies, whilst some of both extremes, as to age and studies, are to be found in both the winter and summer session of the district school. This variety of ages and studies, and consequent variety of classes, increased by the irregularity of attendance, is not only a serious hinderance to the proper arrangement, instruction and government of the school, but presents almost insuperable obstacles to the appropriate construction and furniture of the school-house, which is too often erected on the smallest possible scale of size and expense. A vast amount of physical suffering and discomfort to the pupils is the necessary result of crowding the older and younger pupils into a small apartment, without seats and furniture appropriate to either, and especially when no precaution has been taken to adapt the supply and arrangements of seats and desks according to the varying circumstances of the same school in winter and summer. In every district, or unclassified school, the school-room should be fitted up with seats and desks for the older and younger pupils, sufficient to accommodate the maximum attendance of each class of scholars at any season of the year. And if this cannot be effected, and only a sufficient number of seats can be secured to accommodate the highest number of both sexes in attendance at any one time, then in winter the seats and desks for the smaller children should be removed to the attic, and their place supplied by additional seats and desks for the older pupils; and in summer this arrangement should be reversed.

PRIMARY SCHOOLS.

By a Primary School, in our American School Systems, is understood, not generally an Elementary School, embracing a course of instruction for the great mass of the children of the community

under fourteen years of age—but specifically, that class or grade of schools which receive only the youngest pupils, and those least advanced in their studies.

Any scheme of school organization will be imperfect which does not include special arrangements for the systematic training and instruction of very young children, especially in all cities, manufacturing villages, and large neighborhoods. Among the population of such places, many parents are sure to be found, who, for want of intelligence or leisure, of constancy and patience, are unfitted to watch the first blossoming of the souls of their children, and to train them to good physical habits, virtuous impulses, and quick and accurate observations ; to cleanliness, obedience, openness, mutual kindness, piety, and all the virtues which wise and far-seeing parents desire for their offspring. The general result of the home training of the children of such parents, is the neglect of all moral culture when such culture is most valuable ; and the acquisition of manners, personal habits, and language, which the best school training at a later period of life can with difficulty correct or eradicate. To meet the wants of this class of children, Halls of Refuge and Infant Schools were originally instituted by Oberlin, Owen, and Wilderspin, and now constitute under these names, or the names of Primary Schools, or Primary Departments, a most important branch of elementary education, whether sustained by individual charity, or as part of the organization of public instruction.

No one at all acquainted with the history of education in this country, can doubt that the establishment of the Primary School for children under six years of age, in Boston, in 1818, as a distinct grade of schools, with the modifications which it has since received there, and elsewhere, from the principles and methods of the Infant School system, has led to most important improvements in the quality and quantity of instruction in our public schools, and the sooner a Primary School properly organized, furnished and managed, can be established in every large neighborhood, and especially in the “infected districts” of cities and manufacturing villages, the more rapid and more thorough will be the progress of education. Its doors should stand wide open to receive such children as are abandoned by orphanage, or, worse than orphanage, by parental neglect and example, to idle, vicious, and pilfering habits, before the corruptions incident to their situation have struck deep into their moral nature, and before they have fallen under the alluring and training influences and instruction of bad boys who infest such regions, polluting the atmosphere by their profane and vulgar speech, and participating in every street brawl and low-bred riot. From all such influences, the earlier the children of the poor and the ignorant are withdrawn, and placed under the care and instruction of an Infant or Primary School, the better it will be for them and for society. But in every locality the Primary School should be established, and brought as near as possible to the homes of the children, in order to secure their early and regular attendance, and to relieve the anxiety of parents for their safety on their way to and from

school. The peculiarities of play-ground, school-room, and teachers required for this class of schools, should be carefully studied, and promptly and liberally provided. The school-room should be light, cheerful, and large enough for the evolutions of large classes,—furnished with appropriate seats, furniture, apparatus, and means of visible illustration, and having a retired, dry, and airy play-ground, with a shelter to resort to in inclement weather, and with flower borders, shrubbery, and shade-trees, which they should be taught to love and respect. The play-ground is as essential as the school-room for a Primary School, and is indeed the uncovered school-room of physical and moral education, and the place where the manners and personal habits of children can be better trained than elsewhere. With them, the hours of play and study, of confinement and recreation, must alternate more frequently than with older pupils.

To teach these schools properly, to regulate the hours of play and study so as to give variety, vivacity, and interest to all of the exercises, without over-exciting the nervous system, or overtasking any faculty of mind or body,—to train boys and girls to mild dispositions, graceful and respectful manners, and unquestioning obedience,—to preserve and quicken a tenderness and sensibility of conscience as the instinctive monitor of the approach of wrong,—to cultivate the senses to habits of quick and accurate observation and discrimination,—to prevent the formation of artificial and sing-song tones,—to teach the use of the voice, and of simple, ready, and correct language, and to begin in this way, and by appropriate exercises in drawing, calculation, and lessons on the properties and classification of objects, the cultivation of the intellectual faculties,—to do all these things and more, require in the teacher a rare union of qualities, seldom found in one in a hundred of the male sex, and to be looked for with the greatest chance of success among females, “in whose own hearts, love, hope, and patience have first kept school,” and whose laps seem always full of the blossoms of knowledge, to be showered on the heads and hearts of infancy and childhood. In the right education of early childhood, must we look for a corrective of the evils of society in our large cities and manufacturing villages, and for the beginning of a better and higher civilization than has yet blessed our world. The earlier we can establish, in every populous district, primary schools, under female teachers, whose hearts are made strong by deep religious principle,—who have faith in the power of Christian love steadily exerted to fashion anew the bad manners, and soften the harsh and self-willed perverseness of neglected children,—with patience to begin every morning, with but little, if any, perceptible advance beyond where they began the previous morning,—with prompt and kind sympathies, and ready skill in music, drawing, and oral methods, the better it will be for the cause of education, and for every other good cause.

THE following plan of a Play Ground for an Infant or Primary School is copied from “*Wilderspin's Early Education*.” We should prefer to see an accomplished female teacher presiding over the scene.

Play-Ground for an Infant or Primary School.

PRIMARY SCHOOL IN WESTERLY, R. I.

The above cut presents a sufficiently correct view of a Primary School-house erected in Westerly in 1846, after designs by Mr. Telf, of Providence, except that there are two porches or entrances in front, instead of one, as shown in the above view. The porch opens into a spacious entry furnished with hooks and shelves for hats, bonnets, &c., and a sink, with water-pail, wash-bowls, &c. The school-room accommodates sixty pupils, with a desk and seat, each desk accommodating two scholars. In the original plan there were to be thirty chairs, similar to the Boston Primary School Chair, but the committee preferred that every child should have a desk, in which a slate should be inserted.

There is a blackboard, or black surface in front of the scholars, extending between the two entrance doors, and across the entire end in the rear. Below the blackboard, at the rear end of the school-room, there is a leaf in which slates are inserted, where the young children can copy, or otherwise amuse themselves, from lessons drawn by the teacher on the blackboard above.

The play-ground attached is spacious, and the children can there amuse and recreate themselves in the open air, without exposure to accidents from passing vehicles, &c.

A second primary school-house on the same plan has been erected in another part of the village.

With very slight modifications, these houses can be pointed to as safe models for Primary school-houses.

These schools receive the small children, while the older attend in an intermediate department and in the High School situated in the centre of the village. These schools, as at present organized and managed, meet the educational wants of the village.

VILLAGE SCHOOL-HOUSE.



PLAN OF VILLAGE SCHOOL-HOUSE IN ALLENDALE, N. PROVIDENCE, R. I.

The above is a view of the Village school-house erected by Z. Allen, Esq., at Allendale, North Providence, after designs by T. A. Test, of Providence. It is situated in a beautiful grove, on a little knoll which admits of a basement room in the rear, originally designed for a library and reading room for the village, but now occupied by a Primary school. It is built of stone in a style very common in structures of this kind in England. The main room, which is intended for a school-room, although for the present used for lectures, and religious exercises, is very appropriately finished—the walls being made to represent stone work of a very subdued neutral tint, and the ceiling, supported by wooden tracery, is finished partially in the roof, leaving the necessary open space above to protect the room from the effects of excessive heat and cold. The ceiling, wainscoting, seats, desks and doors, are grained in imitation of oak. It is thoroughly ventilated and warmed by air heated in a chamber below.

By the above pleasing specimen of the Elizabethan style, and other varieties not commonly introduced into structures of this kind, Mr. Test has broken, in Rhode Island at least, the dull monotony of wretched pervasions of architecture which characterize the village and country school-houses of New England. We shall present in another place a few specimens of the Elizabethan style, in front and side elevations, for large and small schools, which can be easily modified to suit the wants of particular localities.

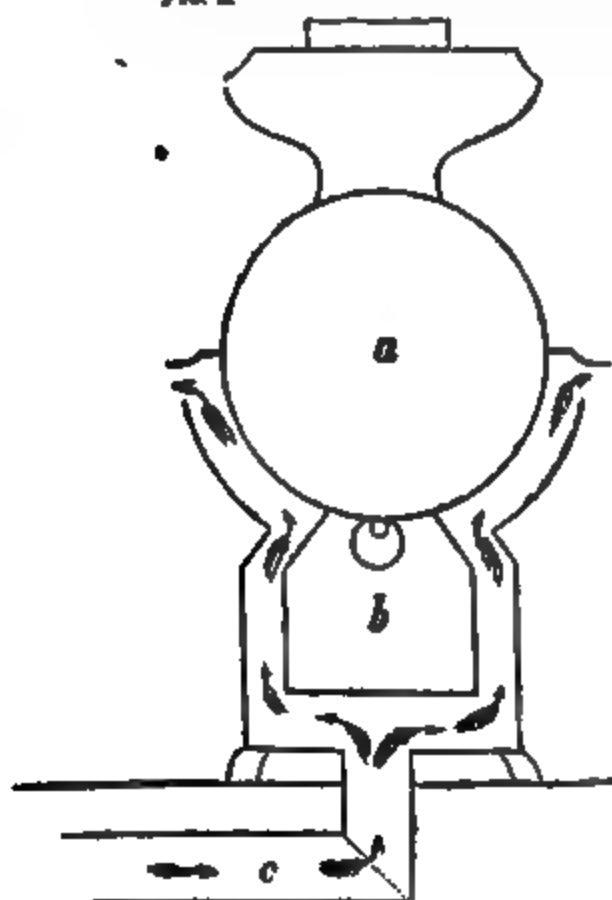
In many neighborhoods it is a matter of economy to build of stone, and where this is the case, the style of architecture should be adapted to the material.

PLAN OF DISTRICT SCHOOL-HOUSE IN GLOCESTER, R. I.

The above cut represents the front elevation of a new school-house erected in District No 13, in the town of Glocester, Rhode Island, which, for location, neatness, and proportion in the external appearance, mode of seating, warming and ventilation, can be consulted as a safe model for small agricultural districts. The cost of the building and furniture was \$600. The style and arrangement of the seats and desks is indicated in Figures 3 and 4. The end pieces are of cast iron, and so shaped, as to facilitate the sweeping of the room, and the pupils getting in and out of their seats, and at the same time are firmly attached to the floor by screws. This building is 30 feet by 20 feet.

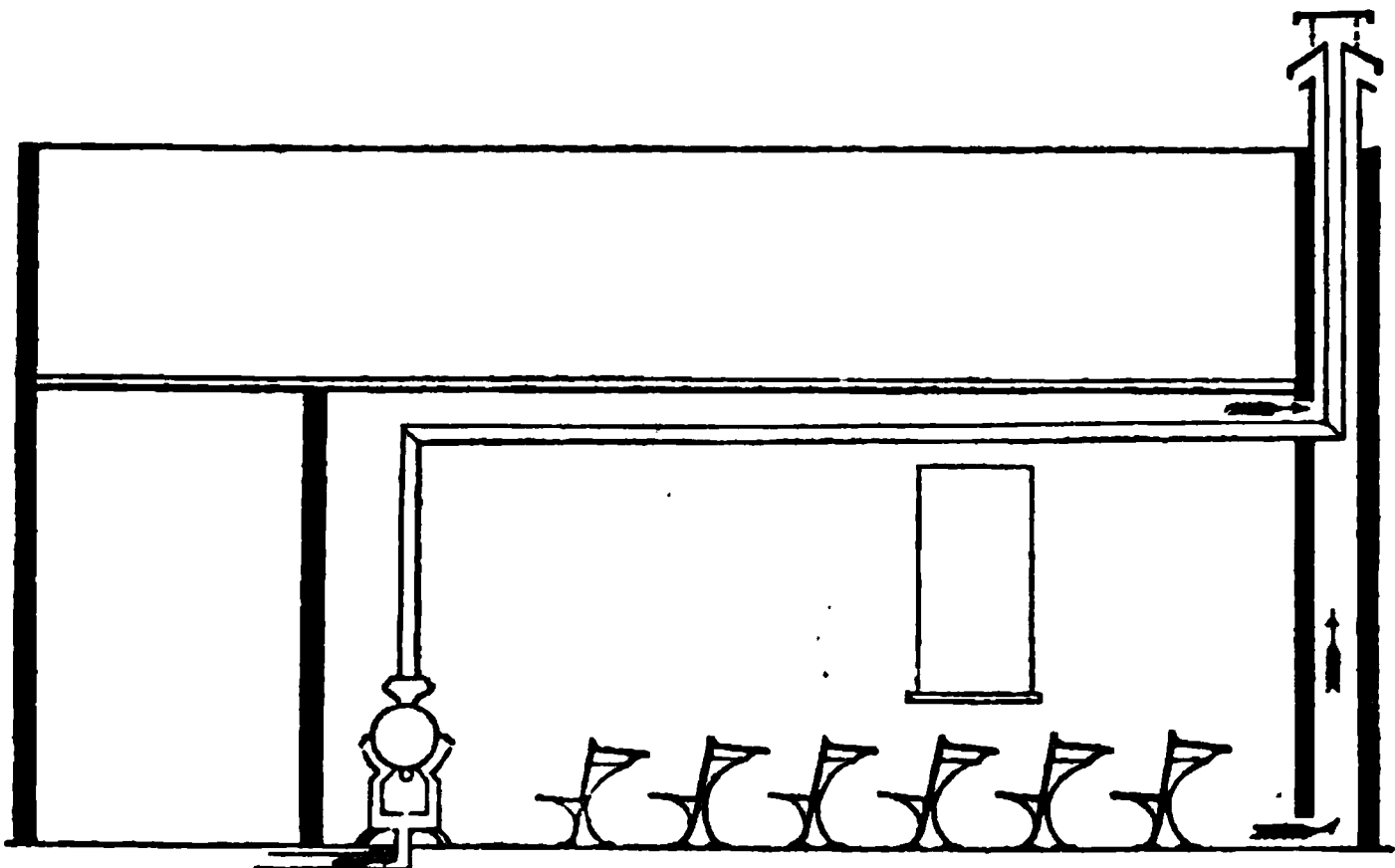
The room is heated by *Mott's Ventilating School Stove*, designed both for wood and hard coal. Fresh air is introduced from outside of the building by a flue beneath the floor, and is warmed by passing along the heated surfaces of the stove as indicated in the following section.

FIG. 2.



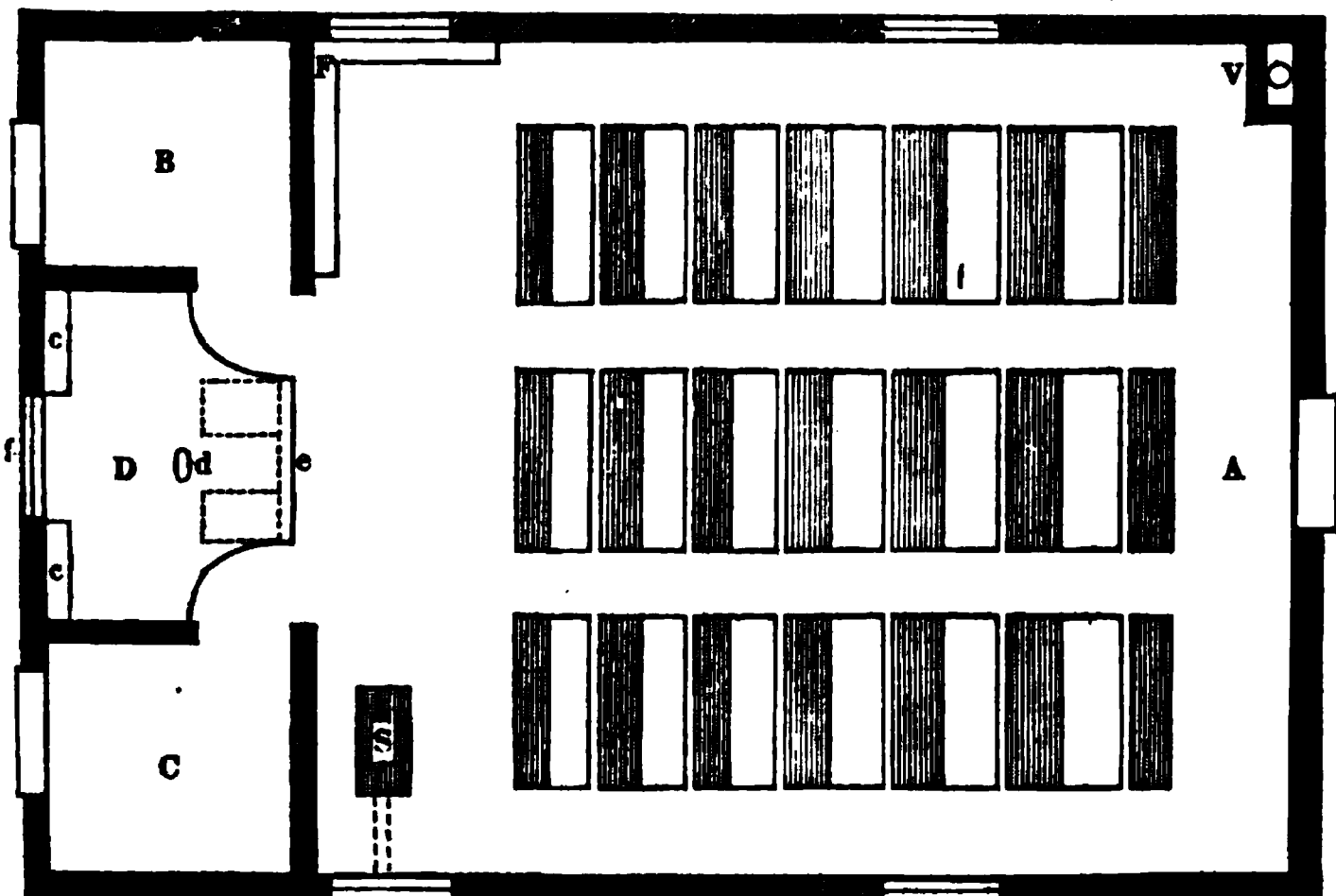
- A. A chamber, for coal or wood.
- B. A revolving grate with a cam motion, by which the ashes are easily detached and made to drop into the ash-pit below.
- C. Ash-pit, by which also the draught can be regulated, and the stove made an air-tight.
- D. Duct, or flue under the floor, by which fresh air from without is admitted under and around the stove, and circulates in the direction indicated by the arrows.

The smoke-pipe is carried in the usual way, high enough to prevent any injurious radiation of heat upon the heads of the pupils below, to the centre of the opposite end of the room, where, after passing through the ceiling, it enters the ventilating flue, which, commencing at the floor, is carried up through the attic and out above the roof, as shown in Figures 3 and 4. The heat of the smoke-pipe produces a lively upward current of the air in the upper portion of the ventilating flue, sufficient to draw off the lower stratum of air near the floor, and at the same time draw down, and diffuse equally through the room, the fresh air which is introduced and warmed by the stove at the opposite end.



A—Front entrance.
 B—Girls' Entrance and lobby.
 C—Boys' do. do.
 D—Teachers' platform.
 E—Seat and desk, for the pupils.
 S—Mott's ventilating school stove.
 V—Flue for ventilation.

F—Seats for classes at recitation.
 d—Teacher's desk.
 e—Library of reference in front of teacher's desk.
 c—Closets for school library and apparatus.
 f—Fence dividing back yard.



PLAN OF DISTRICT SCHOOL-HOUSE IN BARRINGTON, R. I.



The above cut represents in perspective the new school-house in District No. 2, in the town of Barrington, Rhode Island—the most attractive, convenient, and complete structure of the kind in any agricultural district in the State—and, it is believed, in New England.

The house stands back from the highway in a lot, of an acre in extent, and commands an extensive view up and down Narraganset Bay, and of the rich cultivated fields for miles in every other direction.

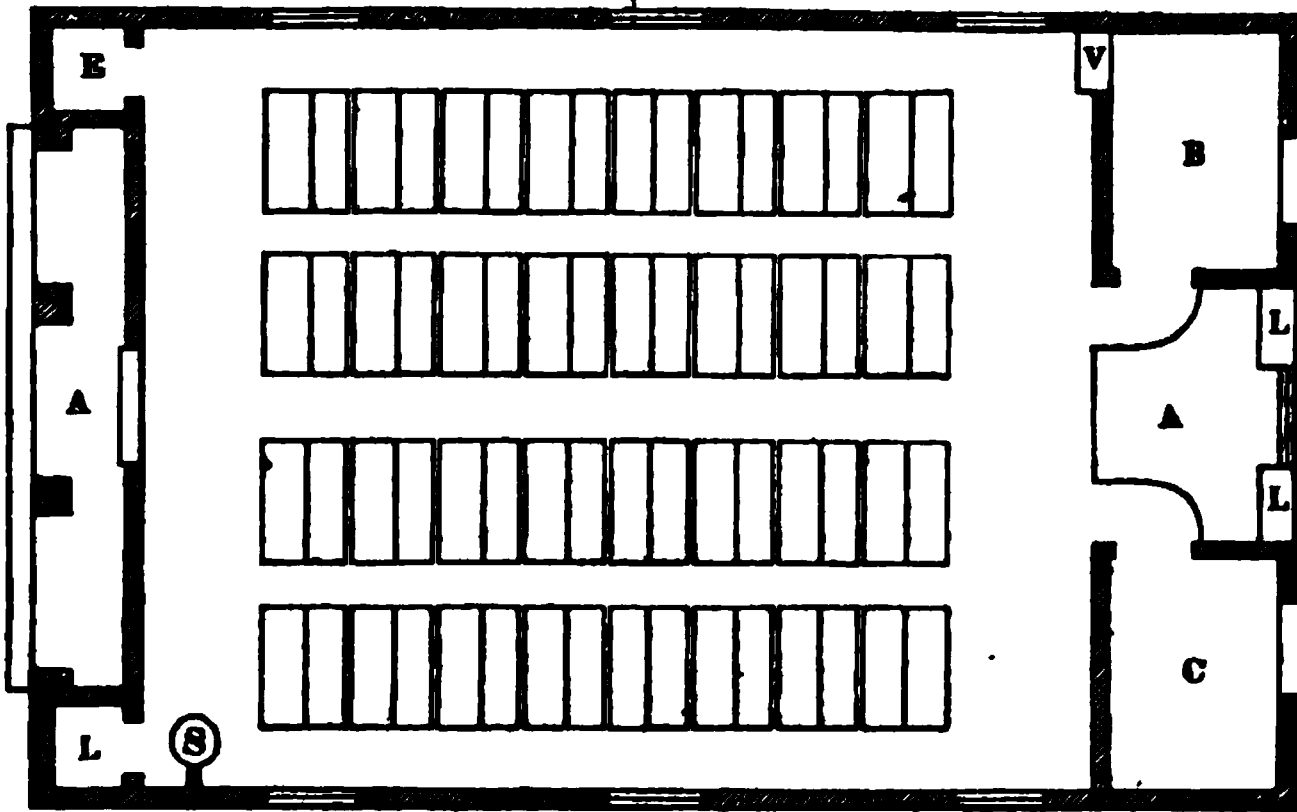
The building is 40 feet long by 25 wide, and 12 feet high in the clear, and is built after working plans drawn by Mr. Telf, of Providence.

The school room is calculated to accommodate 64 pupils, with seats and desks each for two pupils, similar to the following cut, and arranged as in Figure 3.

The end-piece, or supports, both of the desk and seat, are of cast-iron, and the wood work is attached by screws. They are made of eight sizes, giving a seat from ten inches to seventeen, and a desk at the edge next to the scholar from seventeen to twenty-six inches from the floor.

Each pupil, when properly seated, can rest his feet on the floor without the muscle of the thigh pressing hard upon the front edge of the seat, and with a support for the muscles of the back.

The yards and entrance for the boys and girls are entirely separate, and each is appropriately fitted up with scraper, mats, broom, water-pails, sink, hooks and shelves.



- A—Front entrance.
- B—Girls' entrance and lobby, fitted up with mats, scrapers, hooks, shelves.
- C—Boys' entrance.
- D—Teacher's platform.
- S—Boston Ventilating Stove.
- V—Flue for ventilation surmounted, by Emerson's Ejector.
- L—Cases for library.
- E—Closets for apparatus, &c.

The school is well supplied with blackboards, maps, globes, and diagrams, and such other instrumentalities as are necessary and useful in the studies usually taught in a district school.

There is abundance of unoccupied space around the sides of the room and between the ranges of desks to allow of the free movements of the teacher and of the pupils, in passing to and from their seats.

There is also a district library of about 600 volumes, containing a large number of books of reference, such as Dictionaries, Encyclopedia, and a variety of the best text books in the several studies of the school, to enable the teacher to extend his knowledge, and illustrate his recitations by additional information.

There are about one hundred volumes selected with reference to the youngest class of children, and about 400 volumes in the different departments of useful knowledge, calculated for circulation among the older pupils, in the families of the district generally.

The maps, apparatus and library were purchased by the Commissioner of Public Schools at an expense of \$250, which was contributed by five or six individuals. The building, furniture and land, cost about \$1200.

The school-room is warmed and ventilated under the direction of Mr. Gardner Chilson, Boston, by one of the *Boston Ventilating Stoves*, and by a flue constructed similar to those recently introduced into the Boston Public School houses by Dr. Henry G. Clark, and surmounted by Emerson's Ejector.

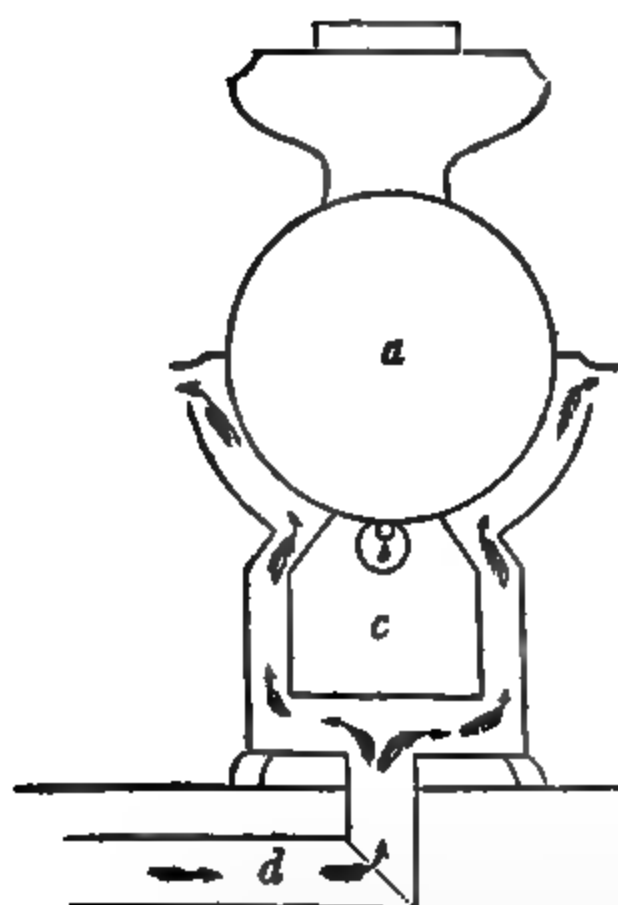
A cut and description of this stove, and of *Mott's Ventilating Stove* for burning wood as well as coal, is given on the next page.

The flue for ventilation is carried up in the partition wall, and is constructed of well seasoned boards, planed smooth on the inside.

MOTT'S VENTILATING SCHOOL-STOVE, FOR BURNING WOOD OR COAL.

Patented and Manufactured by J. L. MOTT, 264 Water-street, N. Y.

By this stove the room is warmed by conducting a supply of moderately heated pure air from without, as well as by direct radiation from the upper portion of the stove.



- A. Air Chamber, for coal or wood.
- B. A revolving grate with a cam process, by which the ashes are easily detached and made to drop into the ash-pit below.
- C. Ash-Pit, by which also the draft can be regulated, and the stove made an air-tight.
- D. Duct, or flue under the floor, by which fresh air from without is admitted under and around the stove, and circulates in the direction indicated by the arrows.

This, and all stoves designed to promote ventilation by introducing fresh air from without, will work satisfactorily only where a flue properly constructed is provided to carry off the air which has become impure from respiration.

Since the first edition of this volume was issued, the stove and furnace described in the Report on the *Boston Mode of Ventilation*, on pages 154, 155, have been somewhat modified by the original patentees, so as to increase the radiating surface, and thereby secure greater economy in the consumption of the fuel. We therefore insert the new drawings, with descriptions abridged from the printed Circulars of Mr. Chilson.

**THE BOSTON VENTILATING STOVE AND PORTABLE VENTILATING
FURNACE.**

*Patented March 10th, 1846, by Henry G. Clark, M. D., and manufactured by
Gardner Chilson, Boston.*

The Boston Ventilating Stove is composed of two cylinders, the inner (Fig. 1,) containing a fire chamber, which is lined with soapstone or fire brick, and is fitted with additional smoke-pipes to increase the radiating surface, while the outer (Fig. 2,) constitutes a chamber for warming the air, which is introduced into it beneath the inner cylinder by a flue from out of doors, and flows out at the top, to which there is a movable cap, or distributor attached, by which the opening is enlarged or diminished, and thus the supply and temperature of the air admitted can be easily regulated.

Fig. 1

Fig. 2.

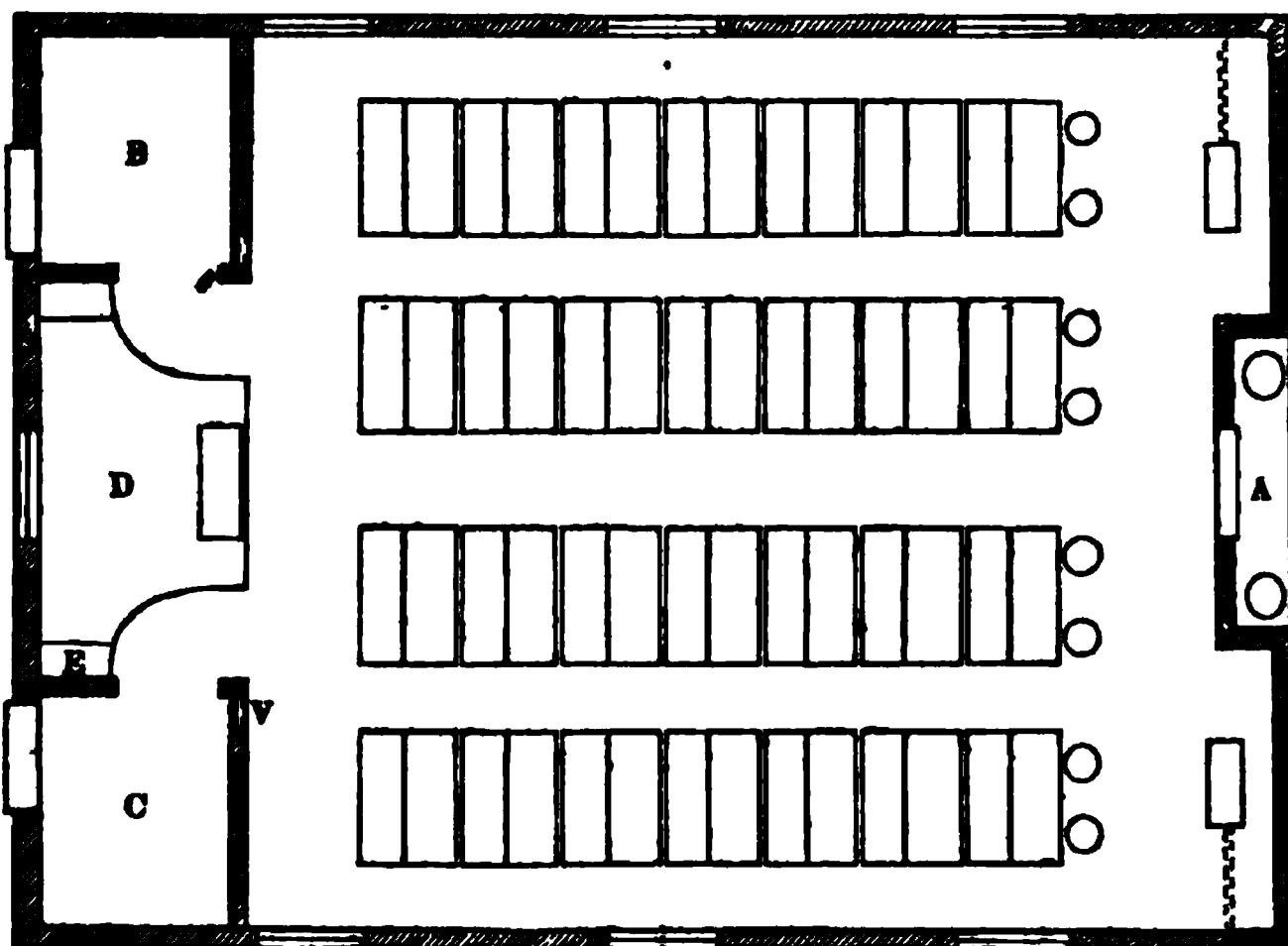
The dark arrows show the course of the air in its passage from the opening underneath the stove, through the air-chamber, into the apartment. The light arrows show the circulation of the smoke through the various radiating pipes.

This stove is made of three sizes, varying in price from twenty-five to forty dollars. It received a silver medal at the Fifth Exhibition of the Massachusetts Charitable Mechanic Association, and has been introduced with signal success into many school-houses in Boston, Charlestown, and other places.

This stove can be advantageously used as a hall stove and as a portable furnace, under circumstances which will not admit of a brick inclosure.

More than sixty District school-houses have been erected in Rhode Island on the same general plan as that presented in the cuts of the Barrington and Glocester school-house, with some slight variations required by the nature of the site, or the peculiar views of the majority of the district, or of the building committee, in each case. The following plans present some of these modifications. The first is 34 ft. by 25, and the second, 36 ft. by 27.

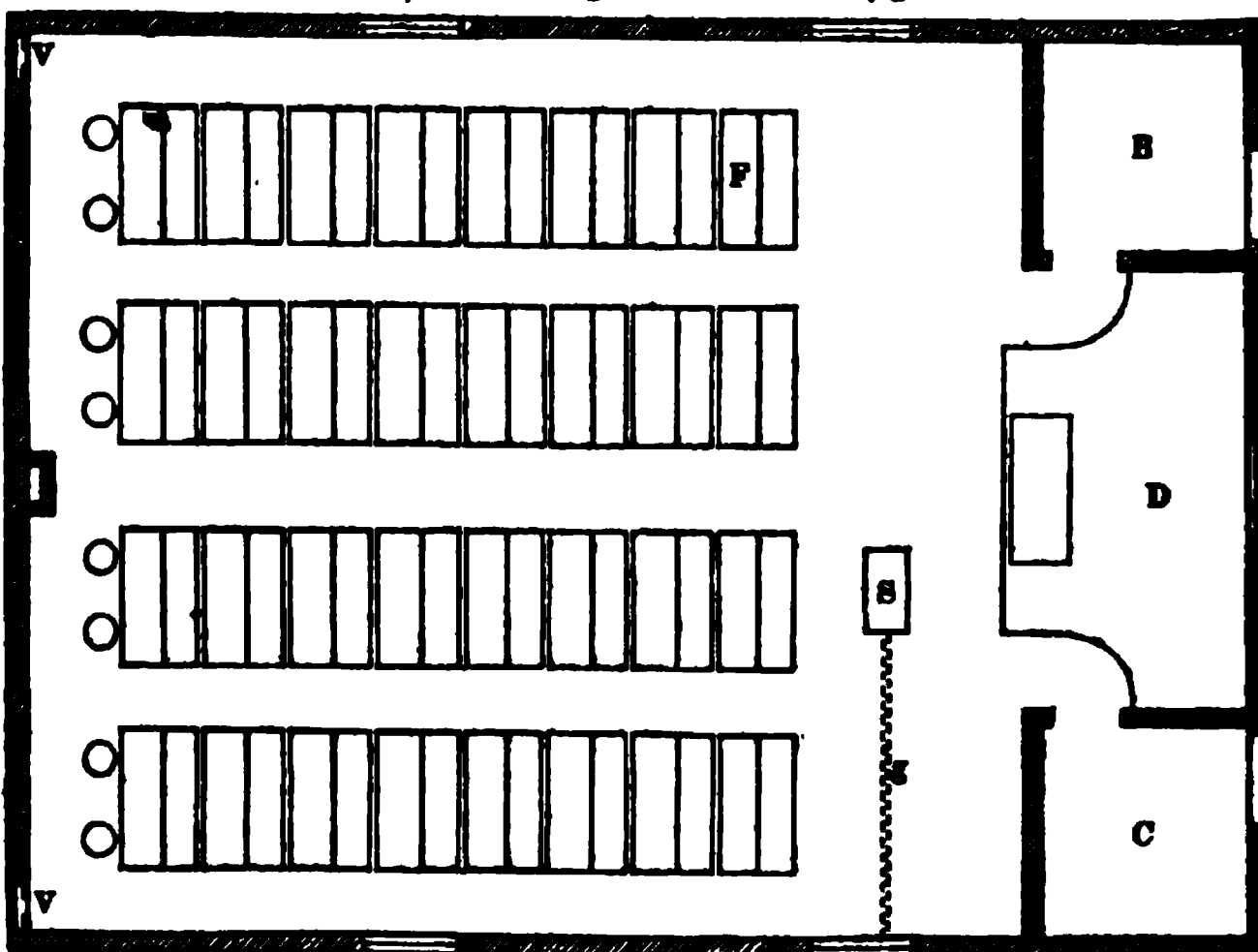
PLAN OF SCHOOL-HOUSE IN DISTRICT NO. 10, CRANSTON.



A—Front entrance.
B—Girls' entrance.
C—Boys' do.

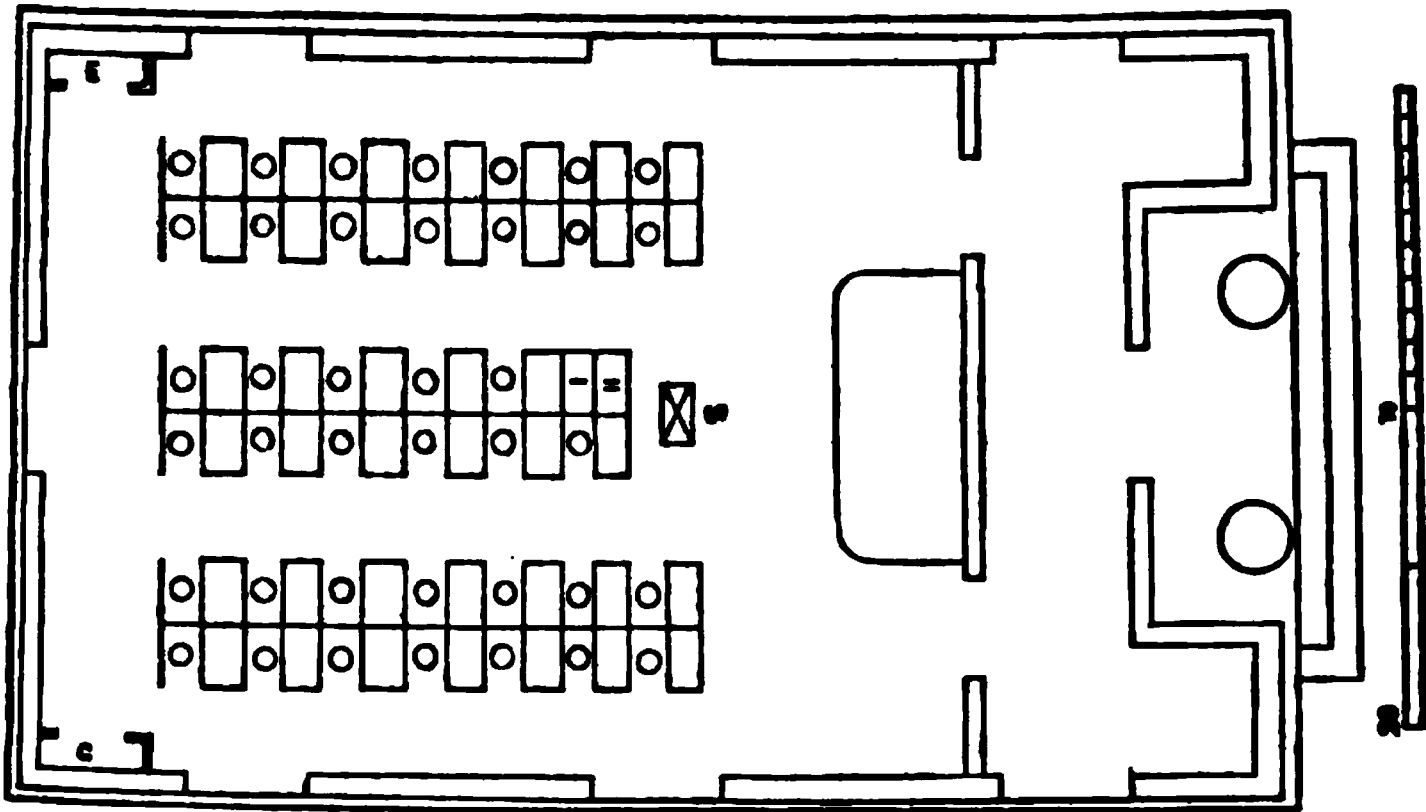
D—Teacher's platform.
E—Library.
S—Worcester Ventilating Stove.

V—Flue for ventilation.
F—Seat and desk with iron ends.
g—Cold air duct.

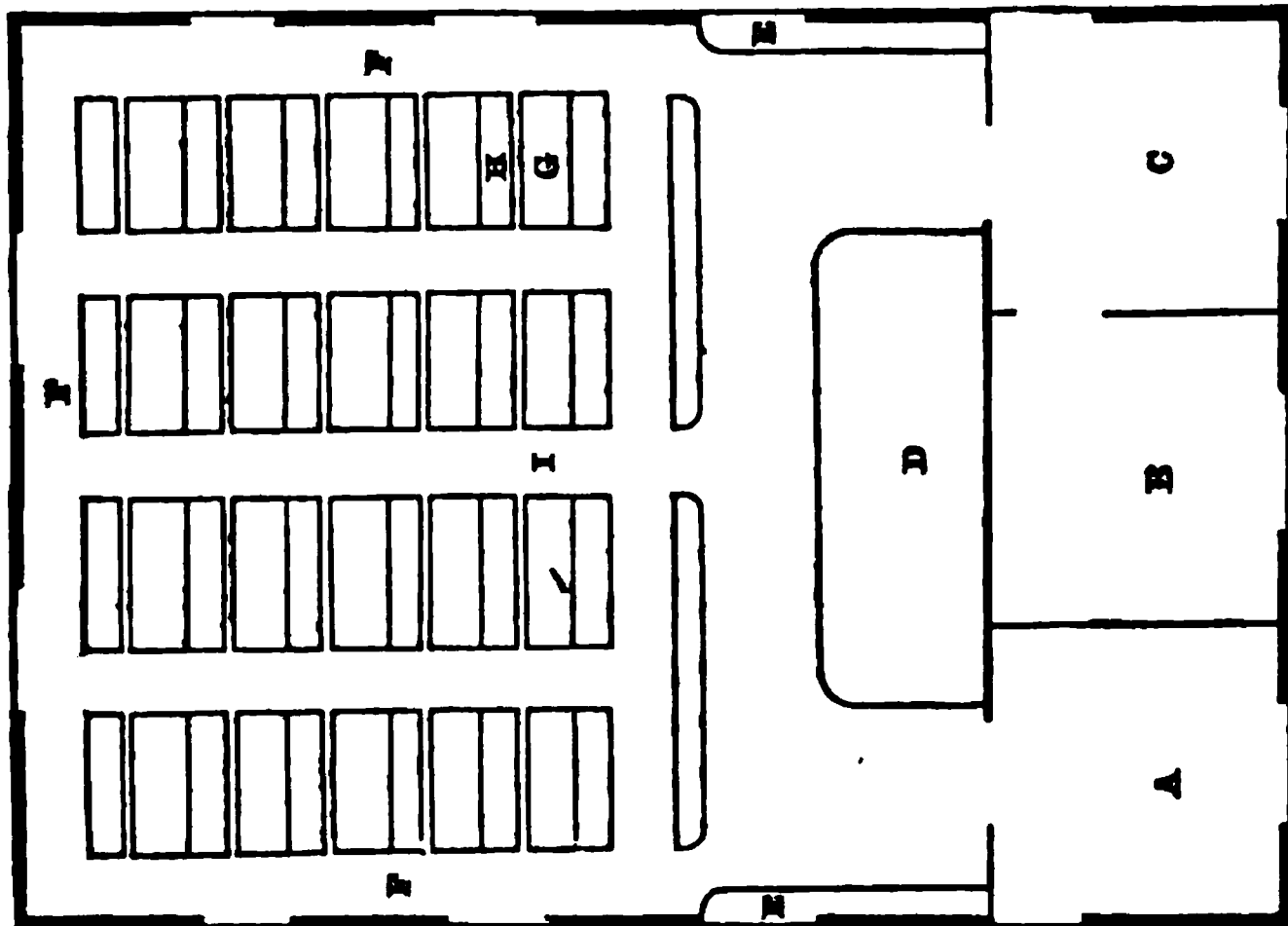


PLAN OF SCHOOL-HOUSE AT CLAYVILLE, SCITUATE.

The following plan, although not followed throughout in any school-house in Rhode Island, presents substantially the internal arrangement which has been adopted in several instances, as in the school-house at Peacedale, in South Kingston, at Carolina Mills in Richmond, and in the lower room of the academy in Kingston.



The following cut, which is copied from a plan of a district school-house recommended by Dr. Lord, Superintendent of the common schools of Columbus, Ohio, presents the plan of several district and village school-houses erected in Rhode Island. The house is 26 feet by 36 feet on the ground.

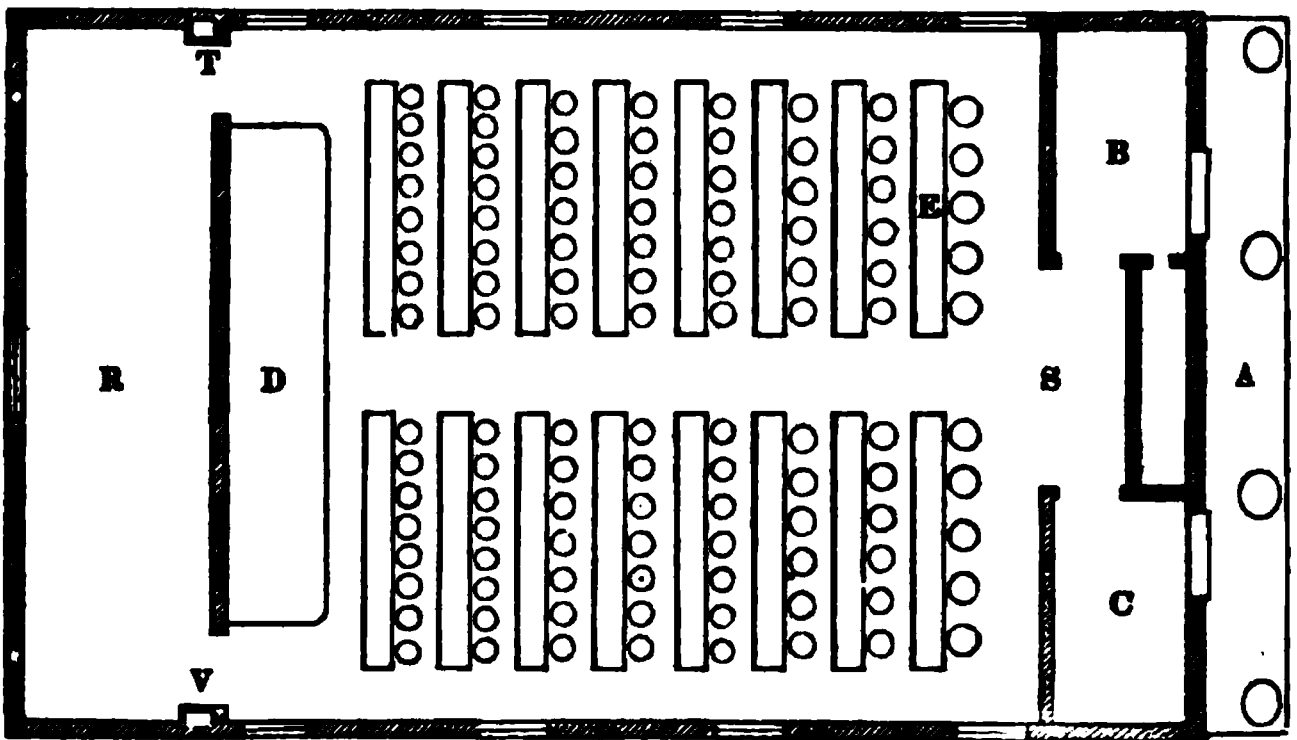


- A—Entry for girls, 8 feet square.
- C— do. for boys, do. do.
- B—Library and apparatus room.
- E—Recitation seats.
- D—Teacher's platform.

- H G—Seat and desk for two pupils, 4 feet long.
- F—Aisles, 2 feet wide.
- I— do. 18 inches wide.

PLAN OF SCHOOL-HOUSE IN CENTREVILLE, WARWICK, R. I.

The following plan presents a mode of seating a District School-House similar to that adopted in several public school-houses in the city of New York.



The building is 50 feet long (beside the porch $5\frac{1}{2}$ feet in front) by 30 feet wide

A—Porch.

B—Girls' entrance and lobby.

C—Boys' do.

D—Teacher's platform.

E—Mott's school desk and chair.

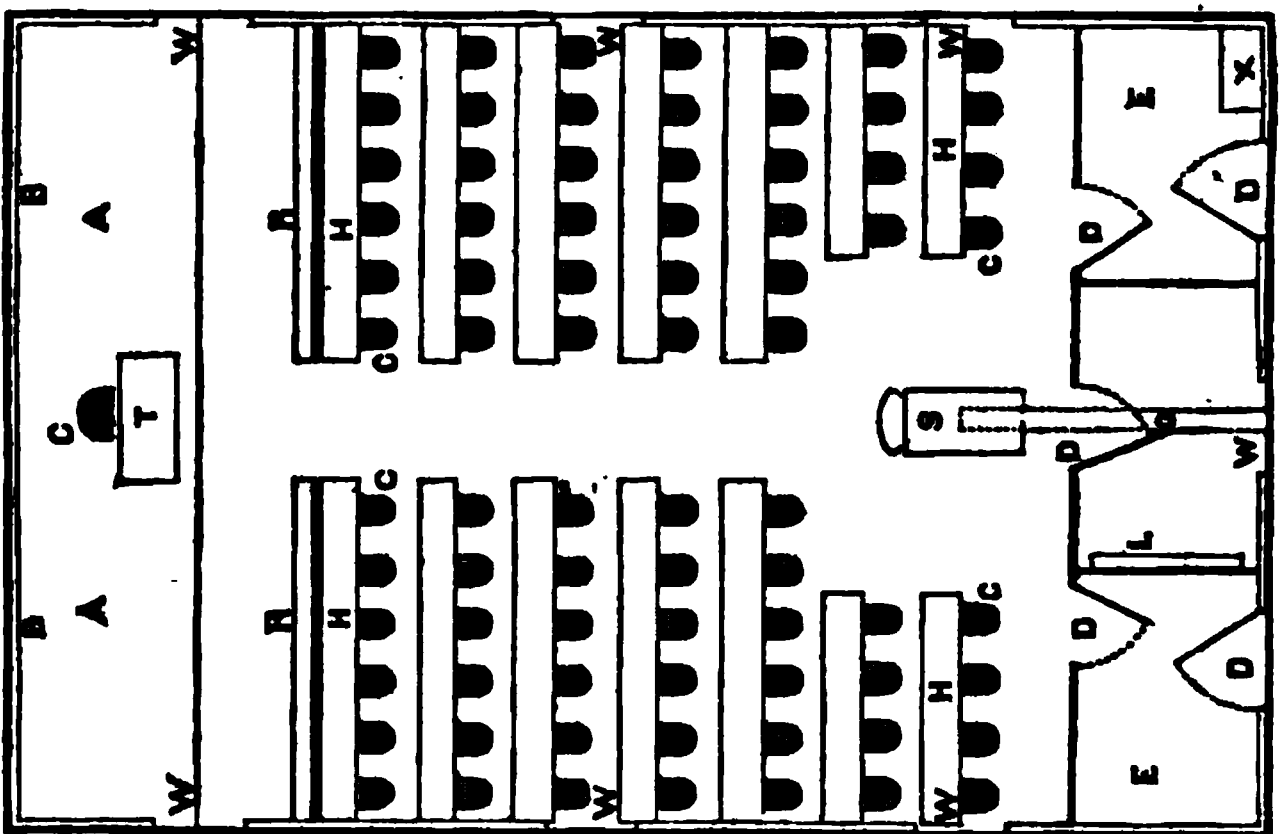
R—Recitation-room for assistant.

S—Stove.

T—Smoke flue.

V—Flue for ventilator.

The above mode of seating has been adopted in other districts, and in one instance, with the desks attached at one end to the wall, as in the following plan recommended by Hon. Ira Mayhew. There are serious objections to this arrangement of the seats and desk.



D, entrance and inner doors. W, windows. E, entries, lighted over doors, one for boys and the other for girls. A, teacher's platform. B, blackboard, reaching entirely across the end of the house. T, teacher's desk. H, desks 11 feet long, except the two next the entrance doors. C, Mott's patent cast-iron chairs. S stove. O, an air tube under the floor, through which pure air from without is introduced beneath the stove. L, shelves for library, apparatus, etc.

PLANS OF SCHOOL-HOUSES FOR UNION SCHOOLS.

BEFORE describing a few of the best school-houses which have been recently erected in the large villages of Rhode Island, for two or more schools of different grades in the same building, a brief consideration of the importance of classification, or gradation, as applied to the schools of a district, or town, cannot be deemed irrelevant.

To enable children to derive the highest degree of benefit from their attendance at school, they should go through a regular course of training in a succession of classes, and schools arranged according to similarity of age, standing, and attainments, under teachers possessing the qualifications best adapted to each grade of school. The practice has been almost universal in New England, and in other states where the organization of the schools is based upon the division of the territory into school districts, to provide but one school for as many children of both sexes, and of all ages from four to sixteen years, as can be gathered in from certain territorial limits, into one apartment, under one teacher; a female teacher in summer, and a male teacher in winter. The disadvantages of this practice, both to pupils and teachers, are great and manifold.

There is a large amount of physical suffering and discomfort, as well as great hinderances in the proper arrangement of scholars and classes, caused by crowding the older and younger pupils into the same school-room, without seats and furniture appropriate to either; and the greatest amount of suffering and discomfort falls upon the young, who are least able to bear it, and who, in consequence, acquire a distaste to study and the school-room.

The work of education going on in such schools, cannot be appropriate and progressive. There cannot be a regular course of discipline and instruction, adapted to the age and proficiency of pupils—a series of processes, each adapted to certain periods in the development of the mind and character, the first intended to be followed by a second, and the second by a third,—the latter always depending on the earlier, and all intended to be conducted on the same general principles, and by methods varying with the work to be done, and the progress already made.

With the older and younger pupils in the same room, there cannot be a system of discipline which shall be equally well adapted to both classes. If it secures the cheerful obedience and subordination of the older, it will press with unwise severity upon the younger pupils. If it be adapted to the physical wants, and peculiar temperaments of the young, it will endanger the good order and habits of study of the more advanced pupils, by the frequent change of posture and position, and other indulgences which it permits and requires of the former.

With studies ranging from the alphabet and the simplest rudiments of knowledge, to the higher branches of an English education, a variety of methods of instruction and illustration are called for, which are seldom found together, or in an equal degree, in the same

teacher, and which can never be pursued with equal success in the same school-room. The elementary principles of knowledge, to be made intelligible and interesting to the young, must be presented by a large use of the oral and simultaneous methods. The higher branches, especially all mathematical subjects, require patient application and habits of abstraction, on the part of the older pupils, which can with difficulty, if at all, be attained by many pupils, amid a multiplicity of distracting exercises, movements and sounds. The recitations of this class of pupils, to be profitable and satisfactory, must be conducted in a manner which requires time, discussion and explanation, and the undivided attention both of pupils and teachers.

From the number of class and individual recitations, to be attended to during each half day, these exercises are brief, hurried, and of little practical value. They consist, for the most part, of senseless repetitions of the words of a book. Instead of being the time and place where the real business of teaching is done, where the ploughshare of interrogation is driven down into the acquirements of each pupil, and his ability to comprehend clearly, remember accurately, discriminate wisely, and reason closely, is cultivated and tested,—where the difficult principles of each lesson are developed and illustrated, and additional information imparted, and the mind of the teacher brought in direct contact with the mind of each pupil, to arouse, interest, and direct its opening powers—instead of all this and more, the brief period passed in recitation, consists, on the part of the teacher, of hearing each individual and class in regular order, and quick succession, repeat words from a book; and on the part of the pupils, of *saying their lessons*, as the operation is significantly described by most teachers, when they summon the class to the stand. In the mean time the order of the school must be maintained, and the general business must be going forward. Little children without any authorized employment for their eyes and hands, and ever active curiosity, must be made to sit still, while every muscle is aching from suppressed activity; pens must be mended, copies set, arithmetical difficulties solved, excuses for tardiness or absence received, questions answered, whisperings allowed or suppressed, and more or less of extempore discipline administered. Were it not a most ruinous waste of precious time,—did it not involve the deadening, crushing, distorting, dwarfing of immortal faculties and noble sensibilities,—were it not an utter perversion of the noble objects for which schools are instituted, it would be difficult to conceive of a more diverting farce than an ordinary session of a large public school, whose chaotic and discordant elements have not been reduced to system by a proper classification. The teacher, at least the conscientious teacher, thinks it any thing but a farce to him. Compelled to hurry from one study to another, the most diverse,—from one class to another, requiring a knowledge of methods altogether distinct,—from one recitation to another, equally brief and unsatisfactory, one requiring a liveliness of manner, which he does not feel and cannot assume, and the other closeness of attention and abstrac-

tion of thought, which he cannot give amid the multiplicity and variety of cares,—from one case of discipline to another, pressing on him at the same time,—he goes through the same circuit day after day, with a dizzy brain and aching heart, and brings his school to a close with a feeling, that with all his diligence and fidelity, he has accomplished but little good.

But great as are the evils of a want of proper classification of schools, arising from the causes already specified, these evils are aggravated by the almost universal practice of employing one teacher in summer, and another in winter, and different teachers each successive summer and winter. Whatever progress one teacher may make in bringing order out of the chaotic elements of a large public school, is arrested by the termination of his school term. His experience is not available to his successor, who does not come into the school until after an interval of weeks or months, and in the mean time the former teacher has left the town or state. The new teacher is a stranger to the children and their parents, is unacquainted with the system pursued by his predecessor, and has himself but little or no experience in the business: in consequence, chaos comes back again, and the confusion is still worse confounded by the introduction of new books, for every teacher prefers to teach from the books in which he studied, or which he has been accustomed to teach, and many teachers cannot teach profitably from any other. Weeks are thus passed, in which the school is going through the process of organization, and the pupils are becoming accustomed to the methods and requirements of a new teacher—some of them are put back, or made to retrace their studies in new books, while others are pushed forward into studies for which they are not prepared; and at the end of three or four months, the school relapses into chaos. There is constant change, but no progress.

This want of system, and this succession of new teachers, goes on from term to term, and year to year—a process which would involve any other interest in speedy and utter ruin, where there was not provision made for fresh material to be experimented upon, and counteracting influences at work to restore, or at least obviate the injury done. What other business of society could escape utter wreck, if conducted with such want of system,—with such constant disregard of the fundamental principle of the division of labor, and with a succession of new agents every three months, none of them trained to the details of the business, each new agent acting without any knowledge of the plan of his predecessor, or any well settled plan of his own! The public school is not an anomaly, an exception, among the great interests of society. Its success or failure depends on the existence or absence of certain conditions; and if complete failure does not follow the utter neglect of these conditions, it is because every term brings into the schools a fresh supply of children to be experimented upon, and sweeps away others beyond the reach of bad school instruction and discipline; and because the minds of some of these children are, for a portion of each day, left

to the action of their own inherent forces, and the more kindly influences of nature, the family and society.

Among these conditions of success in the operation of a system of public schools, is such a classification of the scholars as shall bring a larger number of similar age and attainments, at all times, and in every stage of their advancement, under teachers of the right qualifications, and shall enable these teachers to act upon numbers at once, for years in succession, and carry them all forward effectually together, in a regular course of instruction.

The great principle to be regarded in the classification, either of the schools of a town or district, or of scholars in the same school, is equality of attainments, which will generally include those of the same age. Those who have gone over substantially the same ground, or reached, or nearly reached the same point of attainment in several studies, should be put together, and constitute, whenever their numbers will authorize it, one school. These again should be arranged in different classes, for it is seldom practicable, even if it were ever desirable, to have but one class in every study in the same grade of school. Even in very large districts, where the scholars are promoted from a school of a lower grade to one of a higher, after being found qualified in certain studies, it is seldom that any considerable number will have reached a common standard of scholarship in all their studies. The same pupil will have made very different progress in different branches. He will stand higher in one and lower in another. By arranging scholars of the same general division in different classes, no pupil need be detained by companions who have made, or can make less progress, or be hurried over lessons and subjects in a superficial manner, to accommodate the more rapid advancement of others. Although equality of attainment should be regarded as the general principle, some regard should be paid to age, and other circumstances. A large boy of sixteen, from the deficiency of his early education, which may be his misfortune and not his fault, ought not to be put into a school or class of little children, although their attainments may be in advance of his. This step would mortify and discourage him. In such extreme cases, that arrangement will be best which will give the individual the greatest chance of improvement, with the least discomfort to himself, and hindrance to others. Great disparity of age in the same class, or the same school, is unfavorable to uniform and efficient discipline, and the adaptation of methods of teaching, and of motives to application and obedience. Some regard, too, should be had to the preferences of individuals, especially among the older pupils, and their probable destination in life. The mind comes into the requisitions of study more readily, and works with higher results, when led onward by the heart; and the utility of any branch of study, its relations to future success in life, once clearly apprehended, becomes a powerful motive to effort.

Each class in a school should be as large as is consistent with thoroughness and minuteness of individual examination, and practi-

cable, without bringing together individuals of diverse capacity, knowledge, and habits of study. A good teacher can teach a class of forty with as much ease as a class of ten, and with far more profit to each individual, than if the same amount of time was divided up among four classes, each containing one-fourth of the whole number. When the class is large, there is a spirit, a glow, a struggle which can never be infused or called forth in a small class. Whatever time is spent upon a few, which could have been as profitably spent on a larger number, is a loss of power and time to the extent of the number who were not thus benefited. The recitations of a large class must be more varied, both as to order and methods, so as to reach those whose attention would wander if not under the pressure of constant excitement, or might become slothful from inaction or a sense of security. Some studies will admit of a larger number in a class than others.

The number of classes for recitation in the same apartment, by one teacher, should be small. This will facilitate the proper division of labor in instruction, and allow more time for each class. The teacher intrusted with the care of but few studies, and few recitations, can have no excuse but indolence, or the want of capacity, if he does not master these branches thoroughly, and soon acquire the most skillful and varied methods of teaching them. His attention will not be distracted by a multiplicity and variety of cares, pressing upon him at the same time. This principle does not require that every school should be small, but that each teacher should have a small number of studies and classes to superintend.

In a large school, properly classified, a division of labor can be introduced in the department of government, as well as in that of instruction. By assigning the different studies to a sufficient number of assistants, in separate class-rooms, each well qualified to teach the branches assigned, the principal teacher may be selected with special reference to his ability in arranging the studies, and order of exercises of the school, in administering its discipline, in adapting moral instruction to individual scholars, and superintending the operations of each class-room, so as to secure the harmonious action and progress of every department. The talents and tact required for these and similar duties, are more rarely found than the skill and attainments required to teach successfully a particular study. When found, the influence of such a principal, possessing in a high degree, the executive talent spoken of, will be felt through every class, and by every subordinate teacher, giving tone and efficiency to the whole school.

To facilitate the introduction of these, and similar principles of classification, into the organization and arrangements of the schools of a town or district, as fast and as far as the circumstances of the population will admit, the following provisions should be engrafted into the school system of every state.

1. Every town should be clothed with all the powers requisite to establish and maintain a sufficient number of schools of different grades, at convenient locations, to accommodate all the children re-

siding within their respective limits—irrespective of any territorial division of the town into school districts.

2. Should provision be made for the creation of territorial school districts, a gradation of districts should be recognized, and every district having over sixty children of an age to attend school, should be obliged to maintain a primary school under a female teacher for the young pupils, and provide a secondary school for the older and more advanced pupils.

3. No village, or populous district, in which two or more schools of different grades for the younger and older children respectively, can be conveniently established, should be sub-divided into two or more independent districts.

4. Any two or more adjoining districts, in the same, or adjoining towns, should be authorized to establish and maintain a secondary school for the older and more advanced pupils of such districts, for the whole, or any portion of the year.

5. Any district, not having children enough to require the permanent establishment of two grades of schools, should be authorized to determine the periods of the year in which the public school shall be kept, and to determine the age and studies of the children who shall attend at any particular period of the year, and also to send the older pupils to the secondary school of an adjoining district.

The extent to which the gradation of schools can be carried, in any town or district, and the limit to which the number of classes in any school can be reduced, will depend on the compactness, number, and other circumstances of the population, in that town or district, and the number and age of the pupils, and the studies and methods of instruction in that school. A regular gradation of schools might embrace Primary, Secondary and High Schools, with Intermediate Schools, or departments, between each grade, and Supplementary Schools, to meet the wants of a class of pupils not provided for in either of the above grades.

1. Primary Schools, as a general rule, should be designed for children between the ages of three and eight years, with a further classification of the very youngest children, when their number will admit of it. These schools can be accommodated, in compact villages, in the same building with the Secondary or High School; but in most large districts, it will be necessary and desirable to locate them in different neighborhoods, to meet the peculiarities of the population, and facilitate the regular attendance of very young children, and relieve the anxiety of parents for their safety on their way to and from school. The school-room should be light, cheerful, and large enough for the evolutions of large classes—furnished with appropriate seats, furniture, apparatus and means of visible illustration, and having a retired, dry and airy play-ground, with a shelter to resort to in inclement weather, and with flower borders, shrubbery and shade trees, which they should be taught to love and respect. The play-ground is as essential as the school-room, for a Primary School, and is indeed the uncovered school-room of physical and moral educa-

tion, and the place where the manners and personal habits of children can be better trained than elsewhere. With them, the hours of play and study, of confinement and recreation, must alternate more frequently than with older pupils. To teach these schools properly,—to regulate the hours of play and study so as to give variety, vivacity, and interest to all of the exercises, without over-exciting the nervous system, or over-tasking any faculty of mind or body,—to train boys and girls to mild dispositions, graceful and respectful manners, and unquestioning obedience,—to cultivate the senses to habits of quick and accurate observation and discrimination,—to prevent the formation of artificial and sing-song tones,—to teach the use of the voice, and of simple, ready and correct language, and to begin in this way, and by appropriate exercises in drawing, calculation, and lessons on the properties and classification of objects, the cultivation of the intellectual faculties,—to do all these things and more, require in the teacher a rare union of qualities, seldom found in one in a hundred of the male sex, and to be looked for with the greatest chance of success among females, “in whose own hearts, love, hope and patience, have first kept school.”

- The earlier we can establish, in every populous district, primary schools, under female teachers, whose hearts are made strong by deep religious principle,—who have faith in the power of Christian love steadily exerted to fashion anew the bad manners, and soften the harsh and self-willed perverseness of neglected children,—with patience to begin every morning, with but little if any perceptible advance beyond where they began the previous morning,—with prompt and kind sympathies, and ready skill in music, drawing, and oral methods, the better it will be for the cause of education, and for every other good cause.

2. Secondary Schools should receive scholars at the age of eight years, or about that age, and carry them forward in those branches of instruction which lie at the foundation of all useful attainments in knowledge, and are indispensable to the proper exercise and development of all the faculties of the mind, and to the formation of good intellectual tastes and habits of application. If the primary schools have done their work properly, in forming habits of attention, and teaching practically the first uses of language,—in giving clear ideas of the elementary principles of arithmetic, geography, and the simplest lessons in drawing, the scholars of a well conducted secondary school, who will attend regularly for eight or ten months in the year, until they are twelve years of age, can acquire as thorough knowledge of reading, arithmetic, penmanship, drawing, geography, history, and the use of the language in composition and speech, as is ever given in common or public schools, as ordinarily conducted, to children at the age of sixteen. For this class of schools, well qualified female teachers, with good health, self-command, and firmness, are as well fitted as male teachers. But if the school is large, both a male and female teacher should be employed, as the influence of both are needed in the training of the moral character and manners.

Schools of this grade should be furnished with class-rooms for recitations, and if large, with a female assistant for every thirty pupils.

3. High Schools should receive pupils from schools of the grade below, and carry them forward in a more comprehensive course of instruction, embracing a continuation of their former studies, and especially of the English language, and drawing, and a knowledge of algebra, geometry and trigonometry, with their applications, the elements of mechanics and natural philosophy and chemistry, natural history, including natural theology, mental and moral science, political economy, physiology, and the constitution of the United States. These and other studies should form the course of instruction, modified according to the sex, age, and advancement, and to some extent, future destination of the pupils, and the standard fixed by the intelligence and intellectual wants of the district—a course which should give to every young man a thorough English education, preparatory to the pursuits of agriculture, commerce, trade, manufactures, and the mechanical arts, and if desired, for college; and to every young woman, a well disciplined mind, high moral aims, and practical views of her own duties, and those resources of health, thought, manners and conversation, which bless alike the highest and lowest stations in life. All which is now done in private schools of the highest grade, and where the wants of any considerable portion of the community create such private schools, should be provided for in the system of public schools, so that the same advantages, without being abridged or denied to the children of the rich and the educated, should be open at the same time to worthy and talented children of the poorest parent. In some districts a part of the studies of this grade of schools might be embraced in the Secondary Schools, which would thus take the place of the High School; in others, the High School could be open for only portions of the year; and in others, two departments, or two schools, one for either sex, would be required. However constituted, whether as one department, or two, as a distinct school, or as part of a secondary school, or an ordinary district school, and for the whole year, or part of the year, something of the kind is required to meet the wants of the whole community, and relieve the public schools from impotency. Unless it can be engrafted upon the public school system, or rather unless it can grow up and out of the system, as a provision made for the educational wants of the whole community, then the system will never gather about it the warmth and sustaining confidence and patronage of all classes, and especially of those who know best the value of a good education, and are willing to spend time and money to secure it for their own children.

4. Intermediate Schools or departments will be needed in large districts, to receive a class of pupils who are too old to be continued, without wounding their self-esteem, in the school below, or interfering with its methods of discipline and instruction, and are not prepared in attainments, and habits of study, or from irregular attendance, to be arranged in the regular classes of the school above.

Connected with this class of schools there might be opened a

school or department for those who cannot attend school regularly, or for only a short period of the year, or who may wish to attend exclusively to a few studies. There is no place for this class of scholars, in a regularly constituted, permanent school, in a large village.

5. **Supplementary Schools**, and means of various kinds should be provided in every system of public instruction, for cities and large villages, to supply deficiencies in the education of individuals whose school attendance has been prematurely abridged, or from any cause interfered with, and to carry forward as far and as long as practicable into after life, the training and attainments commenced in childhood.

Evening Schools should be opened for apprentices, clerks, and other young persons, who have been hurried into active employment without a suitable elementary education. In these schools, those who have completed the ordinary course of school instruction, could devote themselves to such studies as are directly connected with their several trades or pursuits, while those whose early education was entirely neglected, can supply, to some extent, such deficiencies. It is not beyond the legitimate scope of a system of public instruction, to provide for the education of adults, who, from any cause, in early life were deprived of advantages of school instruction.

Libraries, and courses of familiar lectures, with practical illustrations, collections in natural history, and the natural sciences, a system of scientific exchanges between schools of the same, and of different towns,—these and other means of extending and improving the ordinary instruction of the school-room and of early life, ought to be provided, not only by individual enterprise and liberality, but by the public, and the authorities entrusted with the care and advancement of popular education.

One or more of that class of educational institutions known as “**Reform Schools**,” “**Schools of Industry**,” or “**Schools for Juvenile Offenders**,” should receive such children, as defying the restraining influence of parental authority, and the discipline and regulations of the public schools, or such as are abandoned by orphanage, or worse than orphanage, by parental neglect or example, to idle, vicious and pilfering habits, are found hanging about places of public resort, polluting the atmosphere by their profane and vulgar speech, alluring, to their own bad practices, children of the same, and other conditions of life, and originating or participating in every street brawl and low-bred riot. Such children cannot be safely gathered into the public schools; and if they are, their vagrant habits are chafed by the restraints of school discipline. They soon become irregular, play truant, are punished and expelled, and from that time their course is almost uniformly downward, until on earth there is no lower point to reach.

Accustomed, as many such children have been from infancy, to sights and sounds of open and abandoned profligacy, trained to an utter want of self-respect, and the decencies and proprieties of life, as exhibited in dress, person, manners and language, strangers to those motives of self-improvement which spring from a sense of so-

cial, moral and religious obligation, their regeneration involves the harmonious co-operation of earnest philanthropy, missionary enterprise, and sanctified wisdom. The districts of all our large cities where this class of children are found, are the appropriate field of home missions, of unobtrusive personal effort and charity, and of systematized plans of local benevolence, embracing friendly intercourse with parents, an affectionate interest in the young, the gathering of the latter into week-day, infant, and primary schools, and schools where the use of the needle, and other forms of labor appropriate to the sex and age of the pupils can be given, the gathering of both old and young into Sabbath schools and worshipping assemblies, the circulation of books and tracts, of other than a strictly religious character, the encouragement of cheap, innocent and humanizing games, sports and festivities, the obtaining employment for adults who may need it, and procuring situations as apprentices, clerks, &c., for such young persons as may be qualified by age, capacity and character. By individual efforts and the combined efforts of many, working in these and other ways, from year to year, these moral jungles can be broken up,—these infected districts can be purified,—these waste places of society can be reclaimed, and many abodes of penury, ignorance and vice can be converted by education, economy and industry, into homes of comfort, peace and joy.

PUBLIC SCHOOL-HOUSE IN WARREN, R. I.

Fig. 1.

THE above cut exhibits a front view of the Public School-house erected in the village of Warren, at the expense of the town, in 1847-48, after drawings made by Mr. Test, of Providence, under the directions of a committee of the town, who consulted with the Commissioner of Public Schools, and visited Providence, Boston, Salem, Newburyport and other places, in order to ascertain the latest improvements in school architecture, before deciding on the details of the plan. To this committee, and particularly to two of its members, Mr. E. W. Burr and Mr. G. S. Gardiner, is the town largely indebted for the time and personal supervision which they devoted to this public improvement, from its first inception to its completion, without any other reward than the realization of their wish to secure for their town the best school-house, for the amount of money expended, in the State. The Commissioner of Public Schools remarked, in his address at the dedication of the house, in September, 1848, "that, for location, style, construction, means of warming, ventilation, and cleanliness, and for the beauty and convenience of the seats and desks, he had not seen a public school-house superior to this in New England. It is a monument at once of the liberality of the town, and of a wise economy on the part of the committee." The town appropriated \$10,000, and the committee expended \$8,594.

The opening of the Public School in this edifice was followed by a large increase of attendance from the children of the town.

The lot is 225 deep and 100 feet wide for a depth of 125 feet, and 161 feet wide for the remaining 64 feet. It is divided into three yards, as exhibited in the ground plan, (Fig. 2,) each substantially inclosed, and planted with trees and shrubbery.

The dimensions of the building are 62 feet by 44 on the ground. It is built of brick in the most workmanlike manner.

Most of the details of construction, and of the arrangement in the interior, are similar to those described on page 214.

Each room is ventilated by openings controlled by registers, both at the floor and the ceiling, into four flues carried up in the wall, and by a large flue constructed of thoroughly seasoned boards, smooth on the inside, in the partition wall, (Fig. 3, x.)

The whole building is uniformly warmed by two of Culver's furnaces placed in the cellar.

Every means of cleanliness are provided, such as scrapers, mats, sink with pump, wash basin, towels, hooks for outer garments, umbrella stands, &c.

The tops of the desks are covered with cloth, and the aisles are to be cheaply carpeted, so as to diminish, if not entirely prevent, the noise which the moving of slates and books, and the passing to and fro, occasion in a school-room.

Fig. 2.

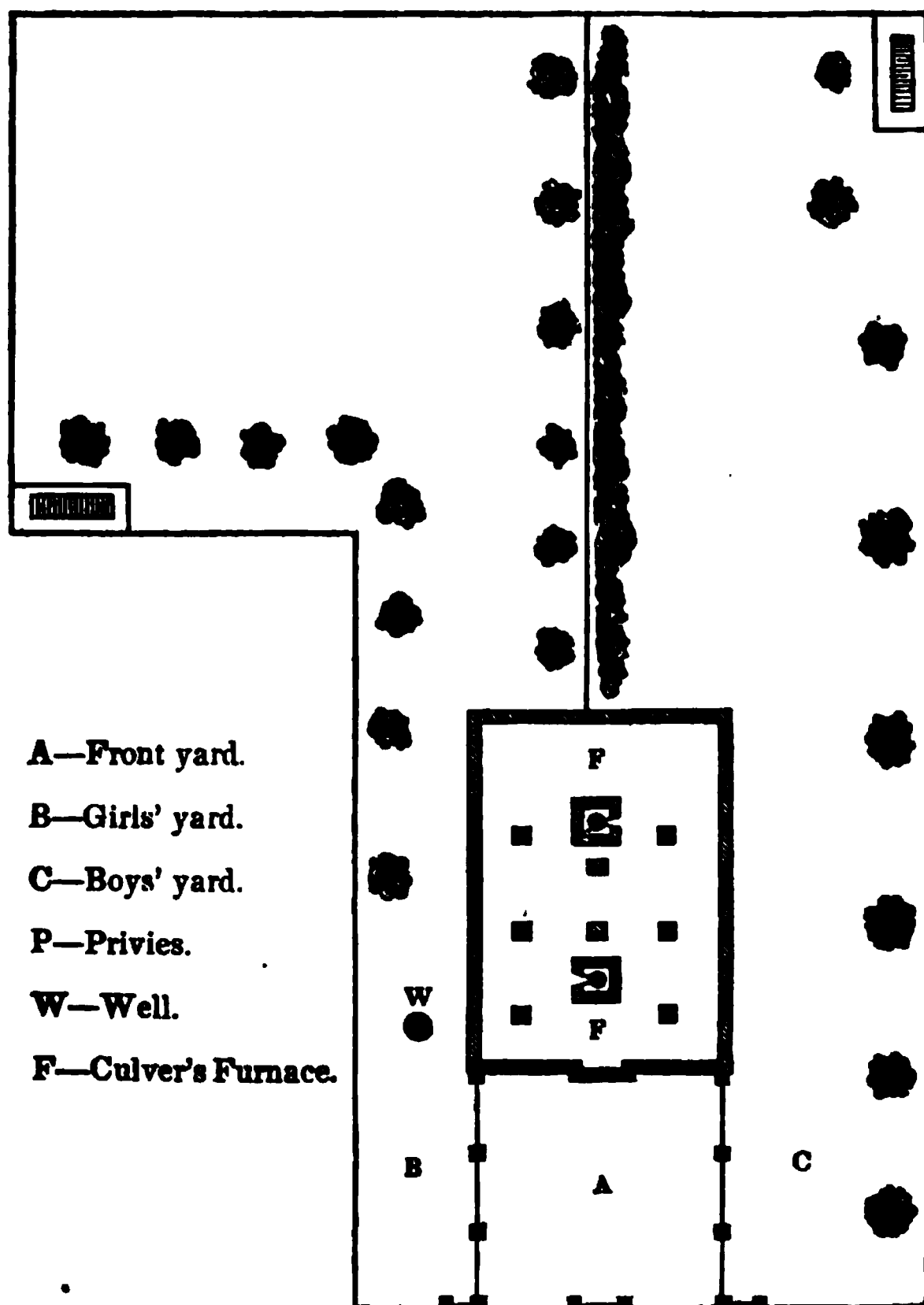
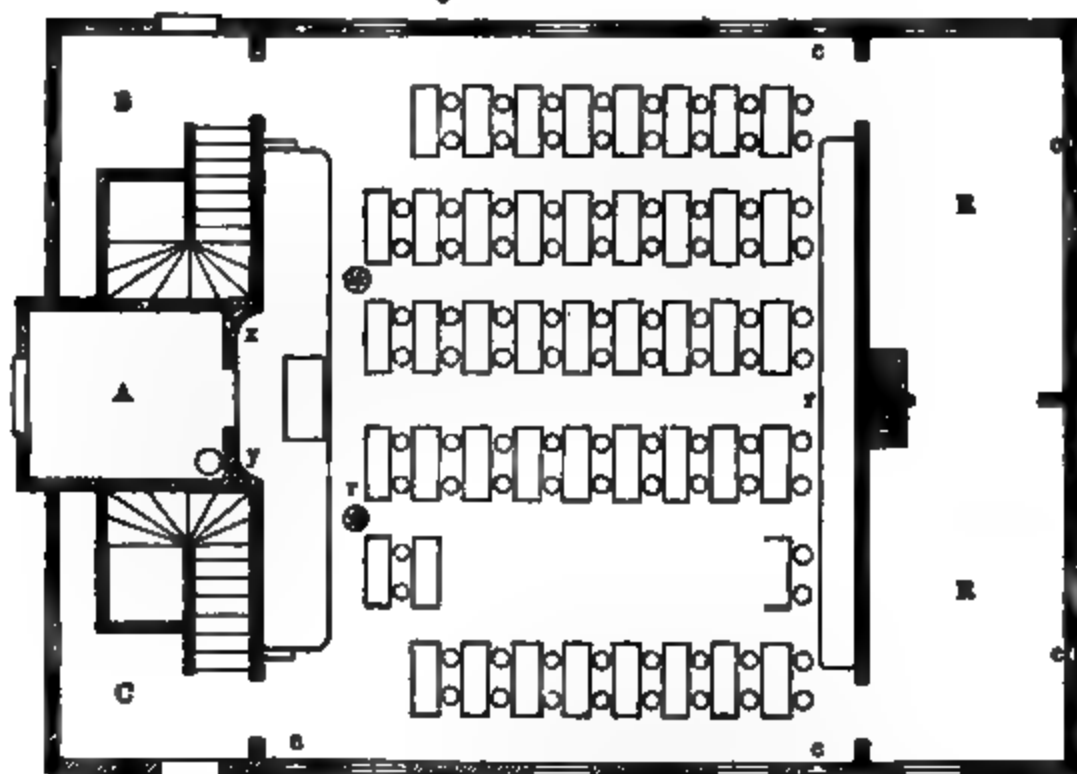


Fig. 3—FIRST FLOOR.



A—Front entrance.

B—Girls' entrance, with mats, scrapers, hooks for clothes, a sink, pump, basin, &c.

C—Boys' entrance do.

R—Recitation rooms, connected by sliding doors.

R, P—Platform for recitation, with a blackboard in the rear.

T—Teacher's platform.

S—Seats and desks; see page 205.

Q—Library and apparatus.

w—Windows, with inside Venetian blinds.

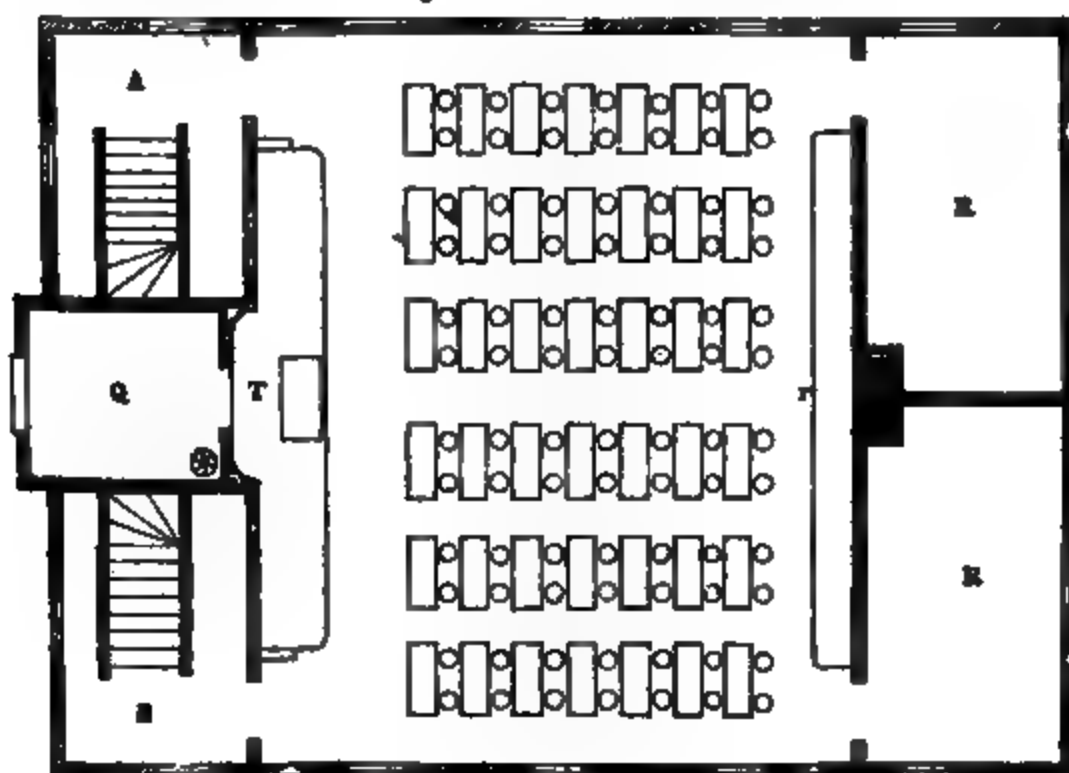
c—Flues for ventilation in the outer wall.

x—Flue for ventilation, lined with smooth, well seasoned boards.

y—Bell-rope, accessible to the teacher by an opening in the wall.

r—Hot air registers.

Fig. 4.—SECOND FLOOR.



UNION SCHOOL-HOUSE, AT WOONSOCKET AND CHEPACHET, R. I.

By the school law of Rhode Island, two or more adjoining school districts in the same, or adjoining towns, may, by concurrent vote, agree to unite for the purpose of maintaining a secondary or grammar school, for the older and more advanced pupils of such associating districts. Under this provision the four school districts in the town of Cumberland, which comprise the village of Woonsocket, voted to unite and provide a school-house for the more advanced pupils, leaving the younger to be accommodated in their respective districts. The Union school-house is located on a beautiful site, the donation of Edward Harris, Esq., and is built substantially after the plan of the Warren Public school-house, already described, at a cost of \$7,000. The following are the front and side elevations, as originally drawn by Mr. Test, but not adopted by the committee.

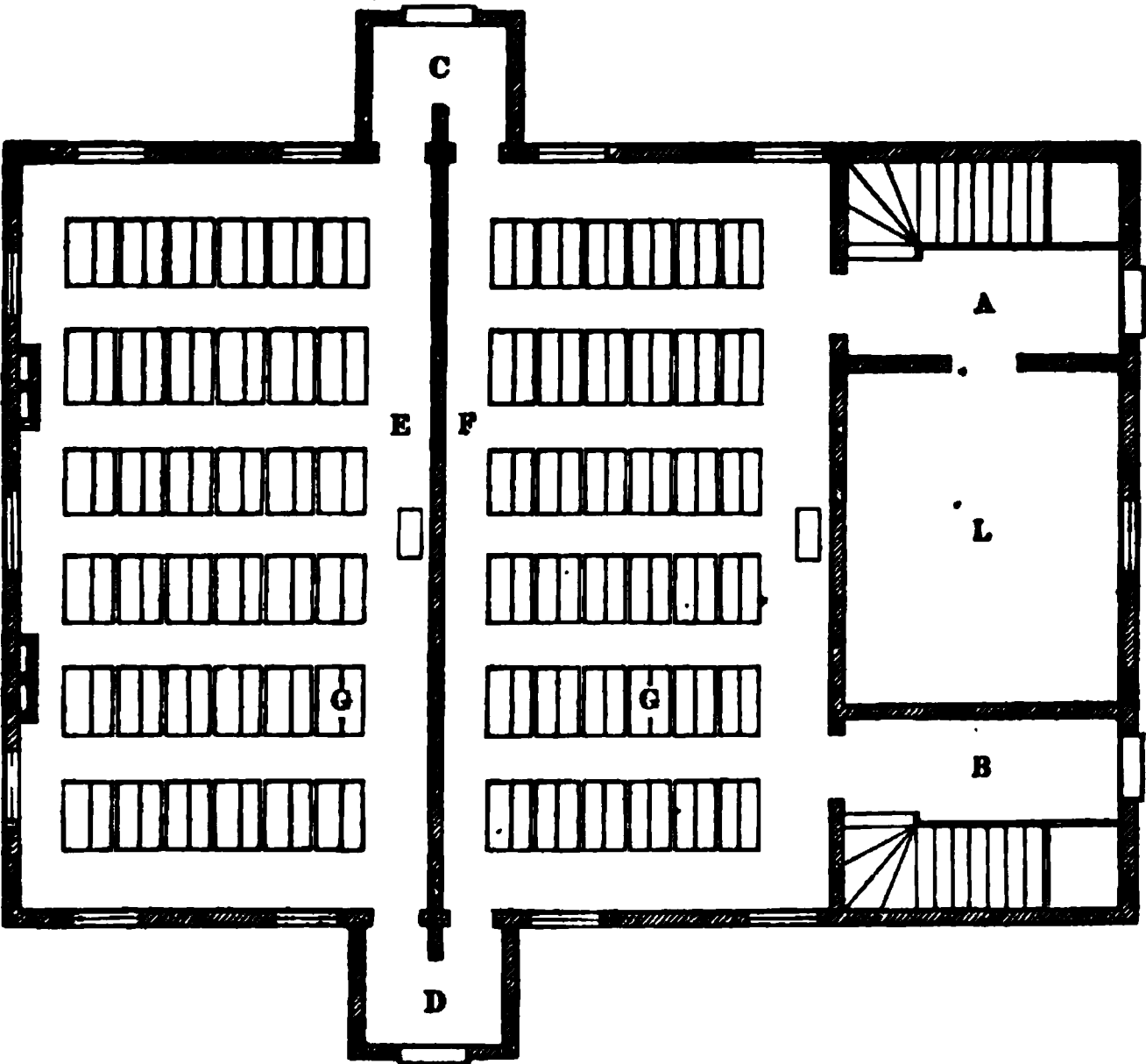
SIDE ELEVATION.



FRONT ELEVATION.

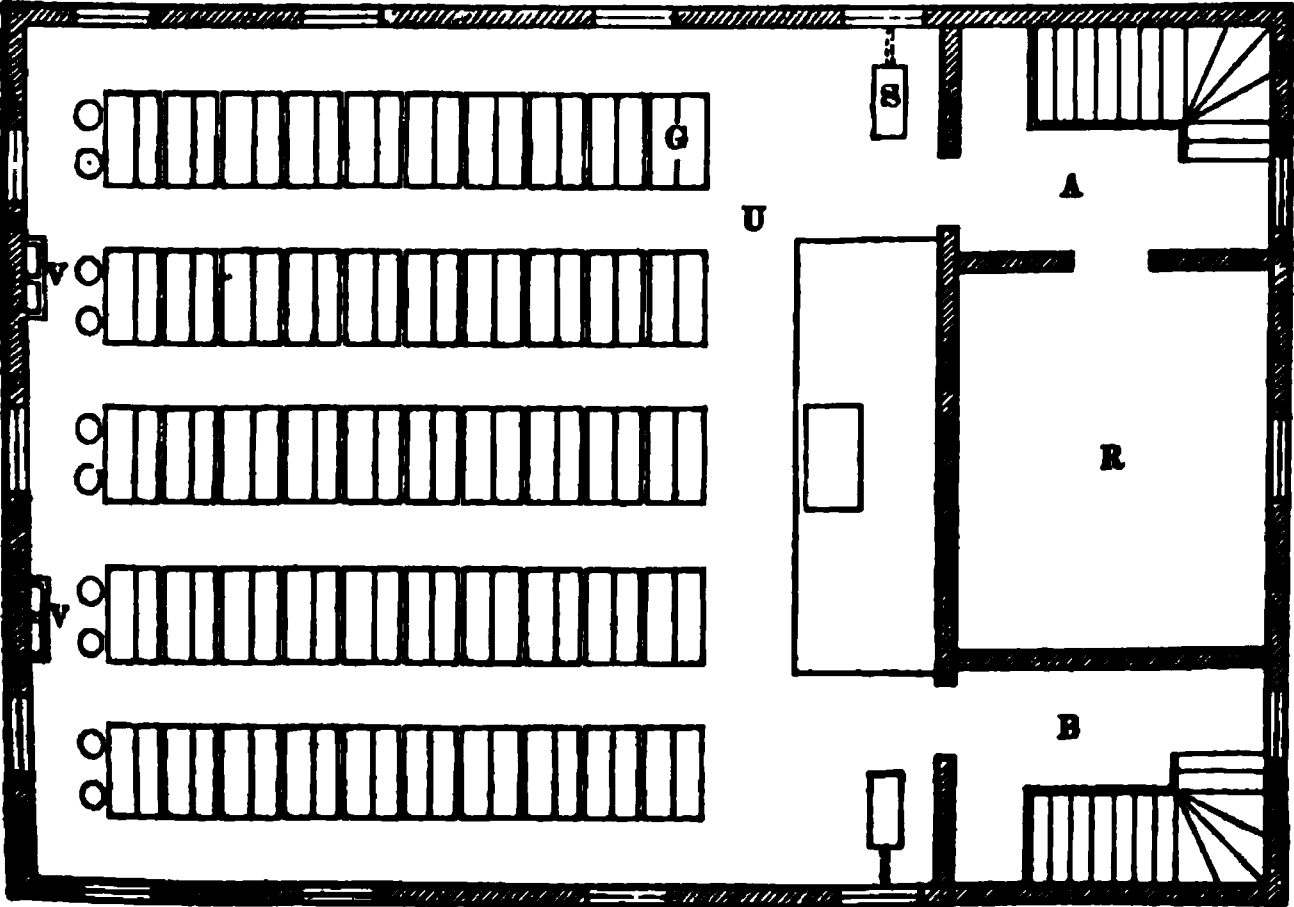
Under the provision above cited, the three districts into which the village of Chepachet, in the town of Glocester, is divided, voted to establish a Union School, and to provide a suitable house for the same. The building is 60 feet by 34, with two stories, and stands in the centre of a large lot, a little removed from the main street, and is the ornament and pride of the village. The lower floor is divided into two apartments; one for the Primary, and the other for an Intermediate School, for the younger pupils of the village, while the Union or Secondary School occupies the whole of the second floor.

Fig. 1.—PLAN OF FIRST FLOOR.



- A—Entrance for Girls to Secondary School, U.
B— " " Boys " " "
C— " " Girls to Primary, E, and Intermediate School, F.
D— " " Boys " " "
E—Primary School-room.
F—Intermediate " "
U—Secondary " " L—Manton Gloucester Library of 900 volumes.
R—Recitation room. S—Stove. V—Flue for ventilation.
G—Seat and desk attached, for two pupils, with iron ends.

Fig. 2.—PLAN OF SECOND FLOOR.



PLAN, &c., OF UNION SCHOOL-HOUSE IN PAWTUCKET, R. I

Fig. 1--PERSPECTIVE.

This school-house is calculated to accommodate, on the first floor, a Primary School, (D,) with seats and desks for one hundred and sixty pupils; two Intermediate Schools, (E, E,) for sixty-four pupils each; and on the second floor, a High School, (F) for one hundred and seventy pupils.

The building is warmed and ventilated by a furnace in the cellar, from which the hot air is conveyed into the several apartments, as indicated by the registers, (r, r, r, r,) in Figs. 2 and 3, and discharged by flues carried up in the walls, as seen at v, v, v, v.

Each school-room is furnished with an appropriate place for outer garments, and with scrapers, mats and other means of neatness and cleanliness.

The boys and girls have each a separate yard in the rear, and separate entrances into the school-rooms.

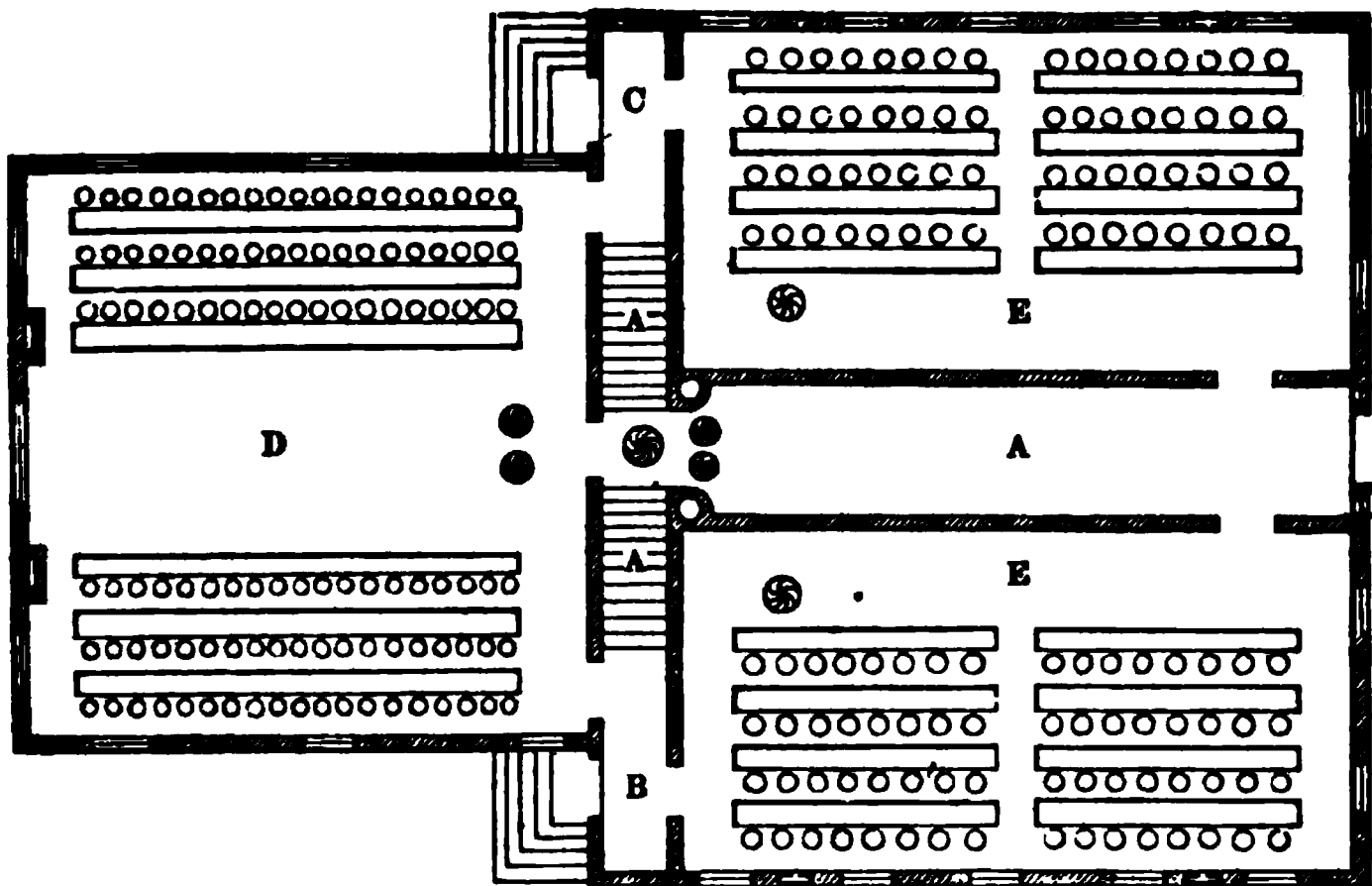
The High School is furnished with seats and desk having cast-iron end pieces similar to those described on page 282.

The Primary and Intermediate school-rooms are furnished with the patent Revolving Pivot Chair, and School-desk, manufactured by J. L. Mott, 264 Water street, New York. The seat of the chair is wood; all other parts are of cast-iron. The seat and back turn on a pivot, while the pedestal is screwed fast to the floor. The height of the lower part of the top of the desk is just equal to the highest part of the back of the chair, so as to allow it to pass under. The front edge of the seat is in a perpendicular line with the edge of the top of the desk, so that the scholar is required to sit erect when engaged in writing or studying, and the same time that part of his back which requires support is fully in contact with the chair.

Since the chairs above described were placed in this house, Mr. Mott has modified the patterns—so as to carry the back piece higher, and thus give support to the muscles above the small of the back. The iron can be covered with felt, and thus the rapid conduction of heat from the body, especially from the spinal column, in children thinly clad, and of delicate constitutions may be prevented.

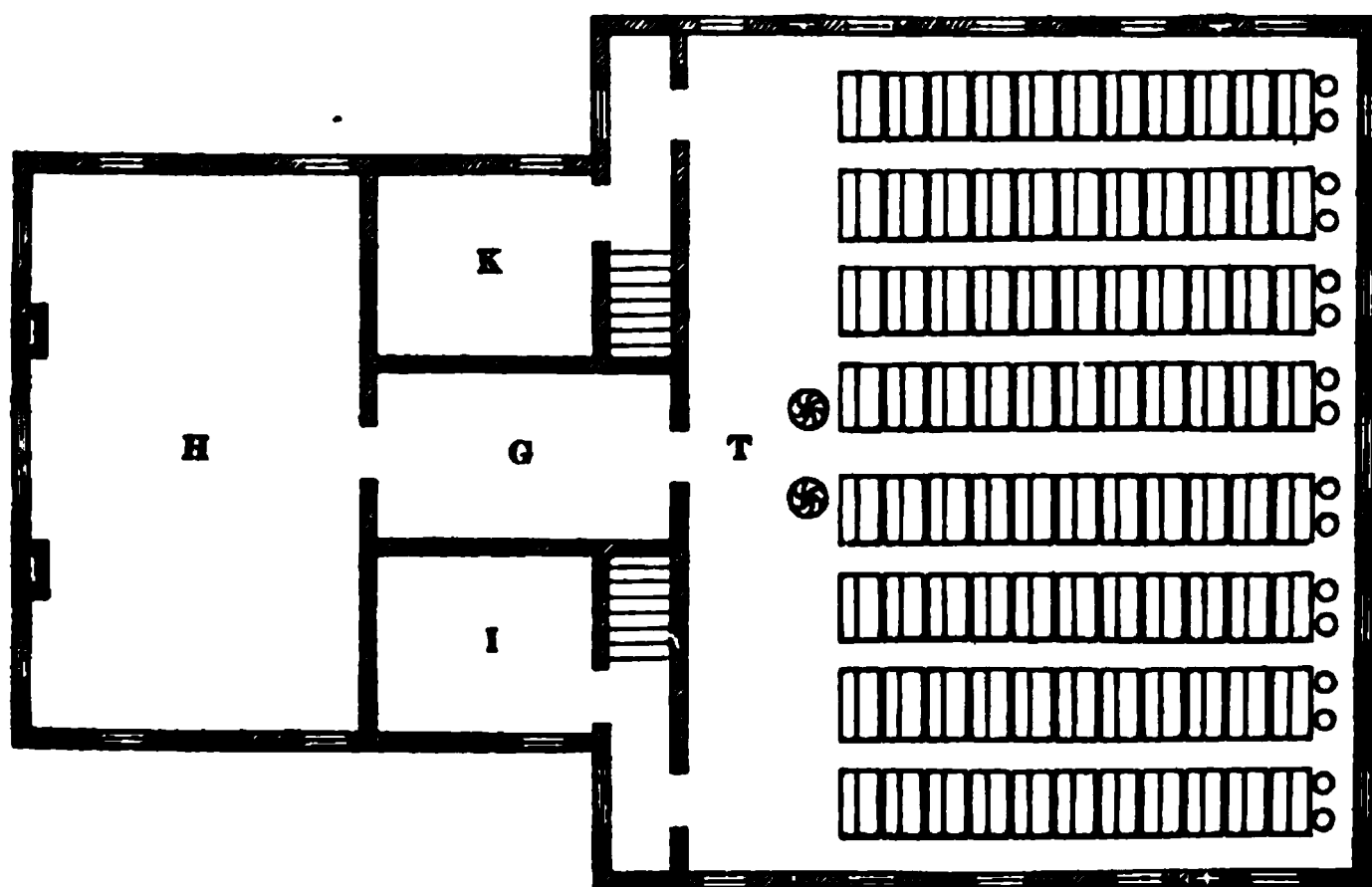
UNION SCHOOL-HOUSE IN PAWTUCKET.

Fig. 2.—PLAN OF FIRST FLOOR.



- A—Entrance to High School.
 B—Entrance for Boys to the Primary and Intermediate Schools.
 C—Entrance for Girls to the Primary and Intermediate Schools.
 D—School-room, 30 feet by 24, for Primary School.
 E, E— " " 40 feet by 16, for Intermediate Schools.
 F— " " 40 feet by 40, for High School.
 G—Room for Apparatus, &c.
 H—Recitation room to High School, 20 feet by 16.
 I—K—Entrance room, one for Boys and the other for Girls, fitted up with books, shelves, wash-stand, &c.
 T—Teacher's desk without any platform.

Fig. 3.—PLAN OF SECOND FLOOR—HIGH SCHOOL.



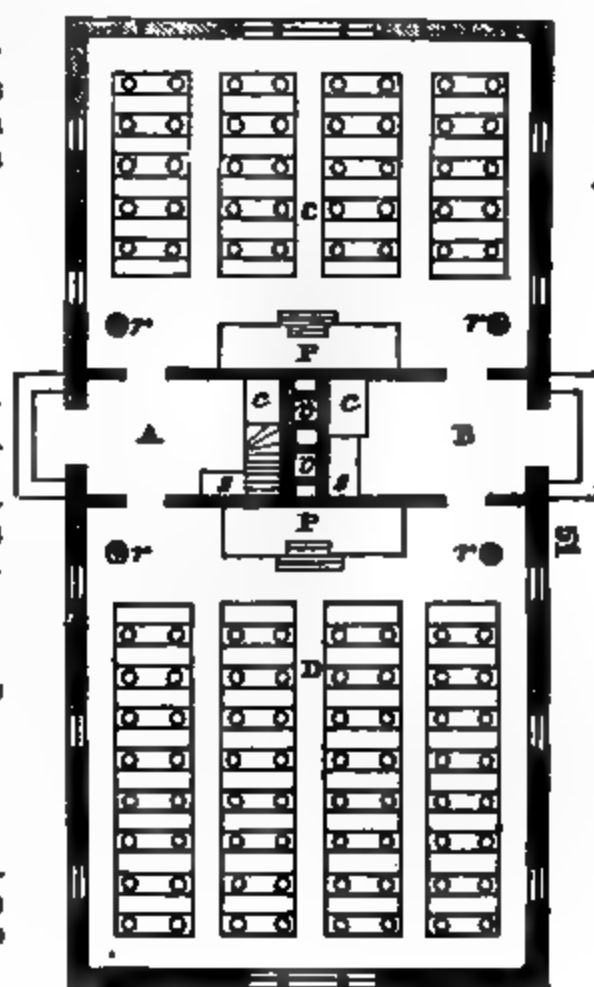
View of District School-house in Centerville.

PLAN AND DESCRIPTION OF DISTRICT SCHOOL-HOUSE IN CENTREMILL,
NORTH PROVIDENCE, R. I.

This house was erected after designs by Mr. Test, of Providence. It stands back from the highway, on an elevated site, in the midst of a grove, and for beauty of design and convenience of arrangement, is not surpassed by any similar structure in New England. It is 26 feet by 51, and 13 feet high in the clear, with two departments on the same floor.

- A, Boys' entry, 6 feet by 10.
B, Girls' ditto.
C, Primary department, 25 feet by 25, with desks and seats attached for 70 pupils; see p. 205.
D, Secondary, or Grammar department, 25 feet by 25, with desks and chairs for 64 pupils; see p. 205.
E, Register for hot air.
F, Flues for ventilation.
G, Closets for dinner pails of those who come from a distance.
H, Sink.

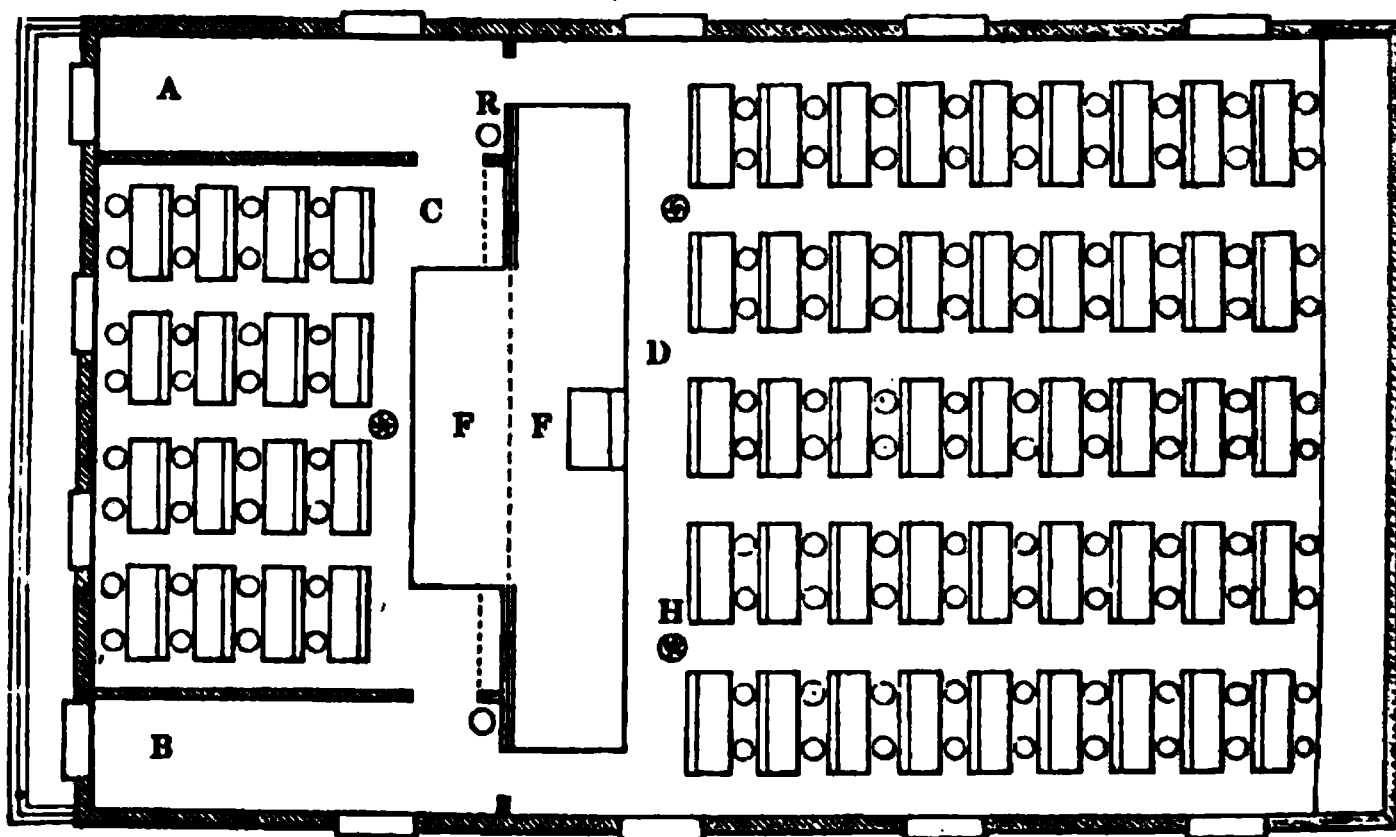
The smoke pipe is carried up between the ventilating flues, and the top of the chimney is finished so as to accommodate the bell.



The perspective of the new school-house at Center Mill, North Providence, on the preceding page, gives a very inadequate idea of the proportion and style of the building itself. Better justice is done to the architect in the view on the next page, of Mr. Kingsbury's Female Seminary in Providence, referred to on page 252, and which is in the same style.

PLAN OF SCHOOL-HOUSE AT WASHINGTON VILLAGE IN COVENTRY, R. I.

The following cut presents the ground plan of the new school-house in the village of Washington, in the town of Coventry, R. I. The location is on the high ground in the rear of the village, and commands an extensive prospect in every direction. The site and yard, occupying one acre, was given to the district by Governor Whipple. The whole structure, without and within, is an ornament to the village, and ranks among the best school-houses in Rhode Island.



A—Boy's entrance.

B—Girl's entrance.

C—Primary school-room.

D—Secondary, or Grammar Department.

E—Teacher's platform.

F—Desks for two, with iron end-piece.

G—Chairs supported on iron pedestal.

H—Register for hot air.

R—Flue for ventilation, within which is carried up the smoke-pipe.

The two school-rooms can be thrown into one, for any general exercise of the two schools, by sliding doors.

The two rooms are uniformly heated by a furnace in the basement.

There is a well, sink, basin, mats, scrapers, bell, and all the necessary fixtures and appendages of a school-house of the first class.

The cost of the building and furniture was \$2,300.

The district possesses a library of upwards of four hundred volumes, the cost of which was raised by subscription in the District.

FRAGMENT OF MR. JOHN KIMBALL'S PSALM SUNDAY, PROVIDENCE, R. I.

CHILSON'S AIR-WARMING AND VENTILATING FURNACE.

Patented and Manufactured by Gardner Chilson, Boston.

The construction of the *Air-Warming and Ventilating Furnace* was projected by the inventor, to obviate the serious, if not fatal, objections, so generally made, to the use of furnaces for warming apartments, where a fresh, healthful atmospheric air is required. From long experience in putting up furnaces, in which coal was consumed in deep iron pots, and the air which they warmed was made to pass over a large extent of iron surface, made and kept red-hot, he found that the occupants of the rooms thus warmed, complained that the air was not unfrequently filled with the gases of the burning coal, and was at all times dry and stagnant, causing, especially to persons of a nervous temperament, disagreeable sensations to the whole system, such as dizziness of the head, headache, inflammation of the eyes and lungs, dryness of the lips and skin, &c. He found, too, by his own experience and observation in the manufacture and use of furnaces of this kind, that there was an unnecessary consumption of coal, when burnt in deep, straight and narrow pots, causing the coal to melt and run to cinders, and at the same time burning out the pots, and loosening the joints of the furnace, by which the deadly gases escaped into the air-chambers, and hence into the apartments above. These objections, both on the score of health and expense, the inventor claims that he has thoroughly obviated in his *Air-Warming and Ventilating Furnace*, and at the same time preserved all the advantages heretofore realized from this mode of warming buildings. The advantages of the Furnace are—

1. The fire-pot is constructed on the most economical and philosophical principles. It is broad and shallow,—at least twice as broad and one third as deep as the common fire-pot;—is one third smaller at the bottom than at the top, and is lined with fire-brick or soap-stone. Thus the fire-bed is deep enough to keep the coal well ignited with a slow but perfect combustion, while the entire heat from the fuel is given out to act upon the radiating surface alone and the fire-pot can never become red-hot, and does not require renewal. This plan for burning coal is original with the inventor, and has met with universal approbation.

2. The radiating surface is large, and so placed that it receives the immediate and natural action of the heat, and at the same time imparts its heat in the

most direct and uniform manner to the fresh air from without, without suffering waste by absorption from the outer walls of the air-chamber.

3. The air-chamber is large, and the fresh air is admitted and discharged so readily and uniformly that no portion of the radiating surface can ever become overheated; and a delightful summer temperature is maintained in the rooms.

4. The joints of the furnace are so constructed, that, even if the iron-work was liable, like other furnaces, to crack from extreme expansion, by being overheated, (which it is not,) the gas from the burning coal cannot escape into the air-chamber.

5. There are no horizontal inner surfaces on which dust and soot can gather, which do not, at the same time, clean themselves, or admit of being easily cleaned.

6. The grate in the fire-pot is so constructed, that the ashes can be easily detached, and the combustion facilitated.

7. It has stood all the test which sharp rivalry and the most severe *philosophical* practical science could apply to it, and has thus far accomplished all that its inventor promised, and when tried in the same building with other furnaces, has uniformly received the preference.

Dr. Bell, Superintendent of the McLean Asylum for the Insane, who has given this whole subject his particular attention, in his *Essay on the Practical Methods of Ventilating Buildings*, published in the proceedings of the Massachusetts Medical Society for 1848, remarks as follows:

"The character of any variety of the hot-air furnace is measured, in my judgment, by the simplicity of its construction, its non-liability to be brought to an undue degree of heat in any part, and its ready receipt and emission of air. That made by Mr. Gardner Chilson, of Boston, with an air-chamber of brick, and an interspace of two or three feet in width, appears to me to combine all the essentials attainable of this mode of heating air, more fully than any other which has fallen under my observation."

In 1847, the School Committee of Boston sanctioned, by a unanimous vote, the introduction of this furnace into the new school-houses to be erected in that city, on the recommendation of a sub-committee, to which the whole subject of warming and ventilating the school-rooms had been referred. The following is the recommendation referred to.

"Your Committee have made themselves acquainted not only with all the Furnaces which have been manufactured in this place, and its neighborhood, but with all those which have been exhibited here recently. Most of them show much ingenuity of contrivance and excellence of workmanship; but are all, so far as we can judge, inferior, in many respects, to the one invented by Mr. Chilson, a model and plans of which we now exhibit, and recommend as superior to all others.

It is simple in its structure, easily managed, will consume the fuel perfectly, and with a *moderate* fire. It is fitted for wood or coal. The fire-place is broad and shallow, and is lined with soapstone or fire-brick, which not only makes it perfectly safe and durable, but modifies very materially the usual effect of the fire upon the iron pot.

The principal radiating surfaces are wrought iron, of a suitable thickness for service, while at the same time the heat of the smallest fire is communicated immediately to the air-chamber. The mode of setting this Furnace we consider essential; more especially the plan of admitting the air to the furnace at its lowest point, as it then rises naturally into the apartments above. This process commences as soon as the temperature is raised even a single degree. The outer walls remain cold; the floor above is not endangered, and the whole building is rapidly filled with an atmosphere which is at once salubrious and delightful."

This Ventilating Furnace may be seen in the Mayhew, Dwight, Hancock, Boylston, Bowdoin, and Ingraham school-houses, in Boston; also in several new school-houses in Cambridge, Roxbury, Dorchester, Springfield, in the Blind Asylum and House of Industry, South Boston, and in hundreds of private houses in Boston and its vicinity.

BUSHNELL'S HOT AIR FURNACE.

Patented and Manufactured by EZRA CLARK, JR., 61 Front street, Hartford.

This invention was projected by the Rev. Dr. Bushnell, of Hartford, Conn., for his own use, and by his consent patented in his name, though he disclaims having or retaining any legal interest in it, or title to income from it.

In this furnace the fire-pot or burner differs from others, in the fact that the feeding-trunk opens directly into the fire, close upon the grate, and not above the fire, allowing the fire to be stirred above the grate and through the feeding-trunk itself. A stiff poker is pushed under the fire, along the top of the grate, and then is borne down, as a lever, throwing up the coals and allowing the ashes to fall through. The dead coals and cinders will thus be thrown up by the action of the poker, and may be taken off by a claw or a small iron rake. The fire being cleared in this way, the grate need never be dropped, and the dirty process of riddling will be avoided. The ash-door being always shut when the fire is stirred, the tender will not be enveloped in a cloud of ashes. The fire, too, may be stirred and cleared when it is in full action, as well as at any other time, and the coals will never be rattled down into a close state by the agitation, so as to choke the fire, but will always be thrown up into a light and open condition, so as to facilitate the combustion.

The radiating part of this furnace, that which extracts the heat, is distinguished by the fact that the cold air is passed into the furnace chamber through horizontal iron tubes or trunks, between which, as composing the sides of upright tubes or trunks, the hot gas of the fire is circulating and giving up its heat as it passes off into the chimney, so that the cold air, in its coldest state, is brought in direct contact with the heated furnace, and is actually heated before it escapes into the chamber of the furnace. Whereas if the heated surface were left to act only upon the mixed and already half-heated air of the chamber, in the ordinary way, the difference of temperature between it and the air in contact would be smaller, and therefore less heat be given out by the same amount of surface.

While, too, the air is passing one way to be heated inside the iron trunks, the hot gas is passing the other way to be cooled on the outside, that is, up and down the upright trunks, and thus the mean difference of temperature is kept the greatest possible at every point. The greatest amount of heat will be communicated in this way, by the least amount of iron surface; that is, in the cheapest manner possible. Meantime the construction is such that the radiator will clear itself, never requiring to be disturbed until it is worn out. Thus it may stand from season to season, always ready for use.

The fire-pot or burner can be furnished with or without soap-stone or fire-brick lining.

EZRA CLARK, JR., also manufactures a *Ventilating School-House Stove*, invented by Dr. Bushnell, and constructed on the same principle as his Hot Air Furnace, but intended to burn wood. Fresh air is introduced from outside the building by a flue below the floor, and is warmed before it is discharged into the school-room. The stove is placed in the school-room, and occupies a space of not more than two and a half feet square. The exterior is finished in a handsome style, and the cost is low.

-APPARATUS.

In addition to the necessary furniture of a school, such as seats, desks, and other fixtures and articles required for the accommodation of pupils and teacher, and the order and cleanliness of the premises, every school-room should be furnished with such apparatus as shall enable the teacher to employ the hand and eye of every pupil in illustration and experiment, so far as may be practicable and desirable in the course of instruction pursued in the school. It is therefore important, in the internal arrangement of a school-house, to have regard to the safe-keeping, display, and use of such apparatus as the grade of the school, for which the house is intended, may require. A few suggestions will therefore be made on these points, and in aid of committees and trustees in selecting apparatus.

1. In a large school, and in schools of the highest grade, there will be need of a separate apartment appropriated to the safe-keeping of the apparatus, and in some departments of instruction, for the proper use of the same. But in small schools, and as far as practicable in all schools, maps, diagrams, and other apparatus, should be in view of the school at all times.

This will not only add to the attractions of the school, and make the school-room look like a workshop of education, but will awaken a desire in the pupils to know the uses of the various articles, and to become acquainted with the facts and principles which can thus be seen, heard, or handled.

2. Such articles as are liable to be injured by dust, or handling, must be provided with an appropriate room, or a case of sufficient size, having glazed and sliding doors, and convenient shelves.

The doors should not be glazed to the floor, on account of liability to breakage, and also to admit of drawers for maps and diagrams, and a closet for such articles as may be uninteresting or unseemly to the eye, although useful in their place.

The shelves should be movable, so as to admit of additions of larger or smaller specimens of apparatus, and also of such arrangement as the varying tastes of different teachers may require.

3. There should be a table, with a level top, and capable of being made perfectly firm, unless the teacher's desk can be so, for the teacher to place his apparatus on, when in use.

4. The apparatus of every school-room should be selected with reference to the grade of schools to which it is appropriated, and in Primary and District schools in particular, should be of simple construction and convenient for use.

5. As far as practicable, the real object in nature and art, and not a diagram, or model, should be secured.

The following list of articles is necessarily very imperfect, but it may help to guide committees in their search after apparatus.

ARTICLES INDISPENSABLE IN SCHOOLS OF EVERY GRADE.

A clock.

The cardinal points of the heavens painted on the ceiling, or on the teacher's platform, or the floor of the recitation room.

As much blackboard, or black surface on the walls of the school-room, and the recitation rooms, as can be secured. A portion of this black surface should be in full view of the whole school, for passing explanations; and another portion out of the way, within reach of the smallest pupils. One or more movable blackboards, or large slate, with one or more movable stands or supporters.

All the appendages to a blackboard, such as chalk, crayons, and a rubber of soft cloth, leather, or sheepskin, and a pointer.

An inkstand, fixed into the desk, with a lid, and with a pen-wiper attached.

A slate, iron-bound at the corners, and covered with list, or India-rubber cloth, for every desk, with a pencil-holder and sponge attached. A few extra slates for the use of the youngest pupils, under the care and at the discretion of the teacher.

A map of the district, town, county, and state.

A terrestrial globe, properly mounted, or suspended by a wire.

The measure of an inch, foot, yard, and rod, marked off on the edge of the blackboard, or on the wall.

Real measures of all kinds, linear, superficial, solid, and liquid; as a foot-rule, a yard-stick, quarts, bushels, an ounce, pound, &c., for the exercise of the eye and hand.

Vases for flowers and natural grasses.

APPARATUS FOR A PRIMARY OR DISTRICT SCHOOL.

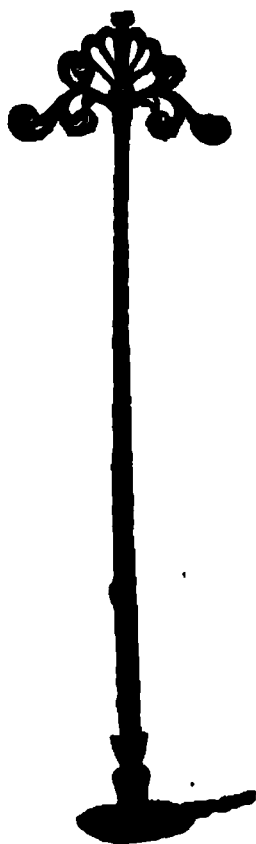
The apparatus for this class of schools cannot be specified with much minuteness, because the ages of the pupils, and the modes of instruction vary so much in different localities. The following list embraces the articles purchased for Primary and District schools in Rhode Island:

Movable Lesson Posts. These are from three and a half to four feet high, and are variously made of wood, and of cast-iron. It consists, when made of wood, of an upright piece of plank from two to three inches square at the bottom, and diminishing regularly to the top, where it is one inch, inserted in a round or cross base broad enough to support the lesson board, or card, which is suspended by a ring on a hook at or near the top of the post.

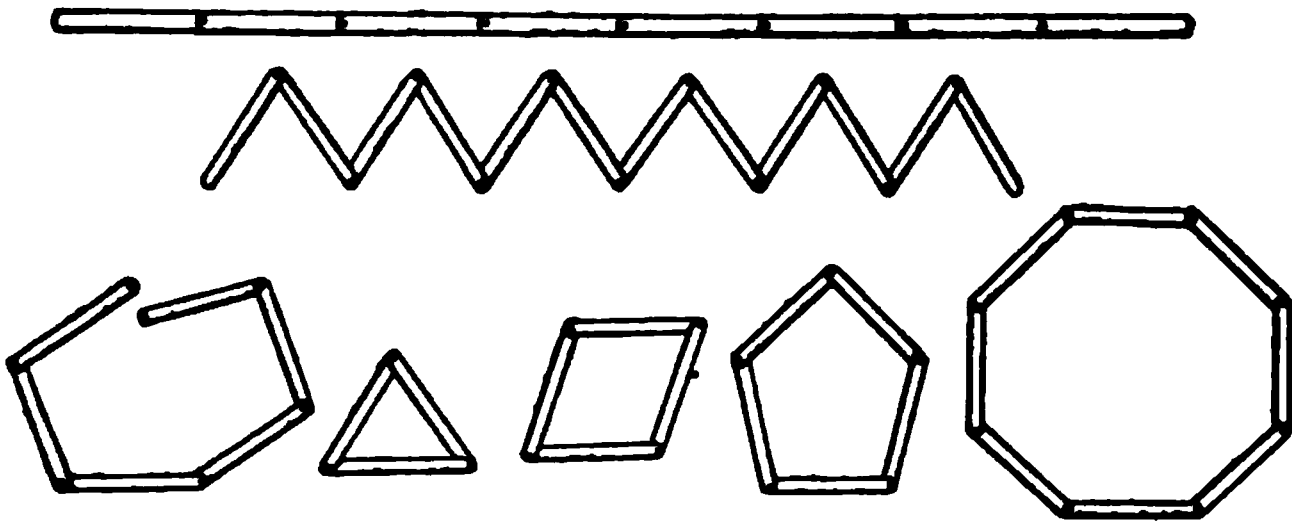
J. L. Mott, 264, Water street, New York, manufactures for the Primary schools of the Public School Society of New York, a very neat cast-iron lesson stand.

Reading Lessons. Colored Prints, and Diagrams of various kinds, such as of animals, costumes, trades, &c., pasted on boards of wood or strong pasteboard; some with, and others without printed descriptions beneath; to be suspended at appropriate times on the lesson stands, for class exercises, and at other times, on the walls, or deposited in their appropriate places.

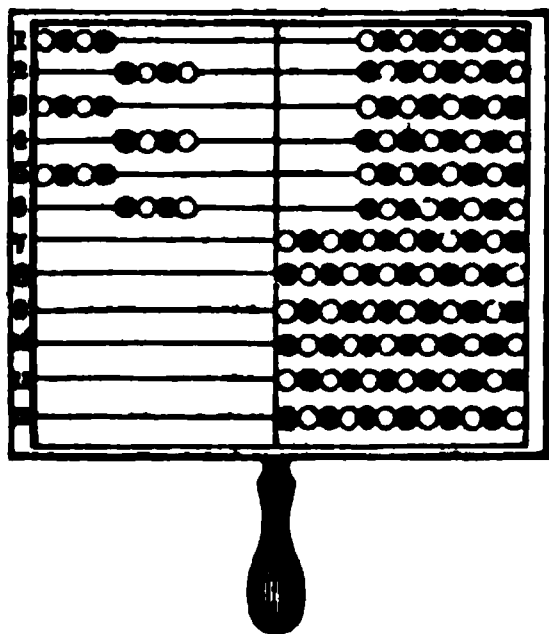
In this list should be included the numeration table, tables for reading arithmetical marks, easy lessons, geometrical figures, punctuation marks, outline maps, &c.



The Gonigraph is a small instrument composed of a number of flat rods connected by pivots, which can be put into all possible geometrical figures that consist of straight lines and angles, as triangles, squares, pentagons, hexagons, octagons, &c.



The Arithmeticon, represented in the annexed cut, is a most useful instrument. In an oblong open frame, twelve rows of wooden balls, alternately black and white, and of the size of a nutmeg or small walnut, and twelve in each row, are strung like beads on strong wires. The instrument, when fixed to a stand, is about four feet high, the frame being one-fourth part broader than it is high. It may be made much smaller, as in the cut. When it is used to exercise the children in arithmetic, the teacher or monitor stands behind, and slides the balls along the wires from his left to his right, calling out the number he shifts, as, twice two are four, thrice two are six, shifting first four balls, and then two more. As the children are apt to confuse the balls remaining with those shifted, a thin board covers half the surface on the side next the children, as marked by a line down the centre, so that they see only the balls shifted to the open side.



Holbrook's Scientific Apparatus embraces a variety of articles which will be found highly useful in the District school, in which both the older and younger pupils of the districts are ordinarily gathered at the same time, and under one teacher.

The following articles constitute a set which costs \$14.75, including a neat box with lock and key:

Tellurian; Suspension Orrery; Gear or Wheel Orrery with metal wheels; Globe; Orbit Plain; Numerical Frame; Geometrical Forms

and Solids ; Twenty-five Geological Specimens ; Geometry ; Scale and Triangle ; Block to illustrate Cube Roots ; Geometrical Chart ; Manuscript Letters : Text Book.

Mr. Josiah Holbrook of New York, whose name was originally connected with this set of apparatus, and with which, as manufactured under his direction, we are familiar, disclaims at this time (1848) any responsibility for the articles manufactured by Holbrook & Co., of Ohio.

This gentleman, so long and so favorably known from his connection with Lyceums, and elementary instruction, is now residing in New York, and has an office in the Hall of the Public School Society. There, in connection with Mr. Seton, and two very ingenious workmen, (Messrs. Riker,) he is now getting up apparatus "which shall be simple, easily used, readily understood, not liable to get out of order, and durable." The following is a list of articles already prepared for Primary Schools :

A Geological Cabinet, Geometricals, embracing plain figures, solids, models of crystals, illustrations of insect architecture and human mechanism, transposing and revolving figures, all illustrated with cuts and explanations ; a globe with maps of the world and United States ; numeral frame ; a simple lever, with weights ; a syphon and glass pump, showing the weight of the atmosphere in raising water ; an air bulb, showing the expansive power of heat, simply by the hand ; a simple permanent magnet ; also an electro-magnet, a microscope, a simple orrery, and First Drawing Book for children, are among the instruments fitted to make clear, distinct, correct and lasting *first impressions* upon young minds, before reading-lessons or the letters of the alphabet can be rendered intelligible to them.

To teach Geography and History properly, the following maps are desirable:

- Map or plan of the school-room, yard, &c.
- Map or plan of the District or Village.
- Map or plan of the Town, County, and State.
- Map of the United States.
- Map of North America.
- Map of Europe.
- Map of the World.
- Map of Palestine.
- Map of the countries mentioned in the Bible and in ancient history.
- Map of Europe during the middle ages.
- Fitch's Chirography, or plates and instruction in map-drawing.
- Series of Outline Maps, published by J. H. Mather & Co., Hartford, Ct.
- A selection from Borgaus & Johnston's *Physical Atlas*, published in Edinburgh in 1847, viz.
 - Rivers in America.
 - Rivers in Europe and Asia.
 - Mountain chains in North and South America.
 - Mountain chains in Europe and Asia.
 - Regions of Earthquakes and Volcanoes.
 - Geological Map of America.
 - Geological Map of Europe.
 - Distribution of Food-plants over the world.
 - Distribution of Animals.
 - Distribution of Man.
- Colton's Historical Chart.
- Willard's Map of Time.
- Mattison's Astronomical Maps.
- Page's Normal Chart of Elementary Sounds.

Fulton's Chirographic Charts.
 Green's Analysis of Sentences.
 Henry's Family and School Monitor.
 Wickham's Drawing Tablets.

APPARATUS FOR GRAMMAR SCHOOLS.

The School Committee of Boston, in 1847, adopted the following articles as a set of Philosophical Apparatus for the Grammar schools, which was selected and classified by Mr. Wightman, whose long experience in manufacturing apparatus for schools of every grade, admirably qualified him for the work:

Laws of Matter.

Apparatus for illustrating Inertia.
 Pair of Lead Hemispheres, for Cohesion.
 Pair of Glass Plates, for Capillary Attraction.

Laws of Motion.

Ivory Balls on Stand, for Collision.
 Set of eight illustrations for Centre of Gravity.
 Sliding Frame, for Composition of Forces.
 Apparatus for illustrating Central Forces.

Mechanics.

Complete set of Mechanicals, consisting of Pulleys; Wheel and Axle; Capstan; Screw; Inclined Plane; Wedge.

Hydrostatics.

Bent Glass Tube, for Fluid Level.
 Mounted Spirit Level.
 Hydrometer and Jar, for Specific Gravity.
 Scales and Weights, for Specific Gravity.
 Hydrostatic Bellows, and Paradox.

Hydraulics.

Lifting, or Common Water Pump.
 Forcing Pump; illustrating the Fire Engine.
 Glass Syphon Cup; for illustrating Intermitting Springs.
 Glass and Metal Syphons.

Pneumatics.

Patent Lever Air Pump and Clamp.
 Three Glass Bell Receivers, adapted to the Apparatus.
 Condensing and Exhausting Syringe.
 Copper Chamber, for Condensed Air Fountain.
 Revolving Jet and Glass Barrel.
 Fountain Glass, Cock, and Jet for Vacuum.
 Brass Magdeburg Hemispheres.
 Improved Weight Lifter for upward pressure.
 Iron Weight of 56 lbs. and Strap Flexible Tube and Connectors for Weight Lifter.
 Brass Plate and Sliding Rod.
 Bolt Head and Jar.
 Tall Jar and Balloon.
 Hand and Bladder Glasses.
 Wood Cylinder and Plate.
 India Rubber Bag, for expansion of air.
 Guinea and Feather Apparatus.
 Glass Flask and Stop-Cock, for weighing air.

Electricity.

Plate Electrical Machine.
 Pith Ball Electrometer.
 Electrical Battery of four Jars.
 Electrical Discharger.
 Image Plates and Figure.
 Insulated Stool.
 Chime of Bells.
 Miser's Plate, for shocks.
 Tissue Figure, Ball and Point.
 Electrical Flyer and Tellurian.
 Electrical Sportsman, Jar and Birds.
 Mahogany Thunder House and Pistol.

Hydrogen Gas Generator.

Chains, Balls of Pith, and Amalgam.

*Optics.*Glass Prism; and pair of Lenses.
Dissected Eye Ball, showing its arrangement.*Magnetism.*Magnetic Needle on Stand.
Pair of Magnetic Swans.
Glass Vase for Magnetic Swans.
Horseshoe Magnet.*Astronomy.*Improved School Orrery.
Tellurian, or, Season Machine.*Arithmetic, and Geometry.*Set of 13 Geometrical Figures of Solids.
Box of 64 one inch Cubes, for Cube Root, &c.*Auxiliaries.*Tin Oiler.
Glass Funnel.
Sulphuric Acid.
Set of Iron Weights for Hydrostatic Paradox.

APPARATUS FOR HIGH SCHOOLS.

The articles of Apparatus for a High School, will depend on the extent to which such studies as Natural Philosophy, Chemistry, &c., are carried, and to the amount of money which can be expended. We have drawn up several such lists, and in doing so have been governed by the circumstances mentioned. As the best guide to committees and teachers, we shall publish in another place, under the head of Priced Catalogues, &c., lists of such articles as can be purchased for sums of money varying from \$50 to \$1000.

MITCHELL'S OUTLINE MAPS.**FORWARDED BY**

J. H. MATHER & CO., HARTFORD; H. H. HAWLEY, & CO., UTICA.

MITCHELL'S OUTLINE MAPS. REVISED AND IMPROVED.

This series of Maps have been thoroughly revised and improved; being accompanied with a Manual of Geography, combining a key to the Maps.

This revised series consists of the following Maps:

No. 1. Hemispheres,	2 sheets,	} Each set by 20 in cheer.	No. 5. Europe,	4 sheets,	} Each set by 20 in cheer.
" 2. North America,	1 "		" 6. Asia,	1 "	
" 3. U. States & Mexico,	4 "		" 7. Africa,	1 "	
" 4. South America,	1 "		" 8. Oceania,	1 "	

These Maps and Manual taken in connection, form a system of elementary instruction in Geography and Map-drawing, independently of other text books. These maps on a reduced scale are introduced in the revised edition of the Manual, by which the method of outline instruction can be fully carried into effect.

One set of these maps for the school-room, and one manual to each scholar, in the class, enables the teachers thoroughly to instruct the whole class simultaneously.

The maps are backed with substantial bleached cloth, the coats water-lined, and the whole beautifully colored, and cased in a portfolio, accompanied by one manual for the teacher.

Price per set \$9.—Extra Manuals of Geography and Key, 30 cents.

MITCHELL'S ORIGINAL SERIES OF OUTLINE MAPS.

This set of outlines, being the first and only full series embracing separate State Maps, has been introduced into every State in the Union.

This series is arranged in the following order.

No. 1. The world represented by Hemispheres,	2 sheets,	No. 13. Mississippi, Louisiana and Arkansas,	1 sheet,
" 2. North America,	1 "	" 14. Kentucky and Tennessee,	1 "
" 3. U. States and Territories,	4 "	" 15. Ohio,	1 "
" 4. Mexico and Guatemala,	1 "	" 16. Indiana and Illinois,	1 "
" 5. Maine,	1 "	" 17. Michigan & pt. of Wisconsin,	1 "
" 6. N. Hampshire and Vt.	1 "	" 18. Missouri and part of Iowa,	1 "
" 7. Mass. R. Island and Conn.	1 "	" 19. South America,	1 "
" 8. New York,	1 "	" 20. Europe,	1 "
" 9. N. Jersey, Penn. and Del.	1 "	" 21. Ex. Cont. and South's. Ea.	4 "
" 10. Maryland and Virginia,	1 "	" 22. Asia,	1 "
" 11. North & South Carolina,	1 "	" 23. Africa,	1 "
" 12. Geo. Ala. and Florida,	1 "	" 24. Oceania,	1 "

Each set by 20 inches.

The State Maps may be profitably used in connection with the revised series, by the addition of one key to the full set. One, or any number of the State Maps, will be supplied to order.

Price of full series, \$15.—Key 25 cents.—A liberal discount to the trade

VALE'S GLOBE AND TRANSPARENT SPHERE.

VALE'S GLOBE AND TRANSPARENT SPHERE, which is but imperfectly represented in the above drawing, aims to accomplish a much desired object, the conjunction of the Terrestrial and Celestial Globe, on so simple a principle that without cogs or wheels, all the apparent and real motions of the earth and heavens can be illustrated. It therefore presents great facilities for pursuing together the study of Geography and Astronomy, which cannot be separated without injury to each other.

The outer circle supports the instrument. In this, the axis slides, by which the instrument is adjusted. This circle is capable of a swivel motion, by which the antipodes, and the seasons in relation to different positions of the spectator, can be easily exhibited.

The sphere just within the outer circle, represents the great circles of the Heavens, as the meridians, equator, ecliptic, with the poles, &c. On this sphere can be placed at pleasure, transparent sections of the Celestial Sphere, which are not shown in the above drawing. One or more quarter sections can be used at a time, by which the stars can be seen within the sphere, or as they appear to the earth in a concave heaven, or sphere. On this transparent celestial globe, the places of the planets and moon can be represented by wafers, and as the sphere revolves, their apparent daily motions and their exact places for every hour, can be shown.

The solid globe within the sphere, represents the Earth. The globe will move on its axis to represent the real daily motion of the earth. To this globe is attached a small Meridian, on which is placed a broad surface extending from the earth within, to the sphere without, by which the horizon is represented to a little traveller attached to the upper surface of the meridian. The traveller can move to any part of the surface of the earth, and the horizon moves with him, thus dividing the heavens into the visible and invisible parts to such traveller, and thereby representing the earth and heavens as they really appear.

A quadrant accompanies the globe, but it is attached to the heavens, and not to the earth. It has a swivel motion, and thus will serve to measure the altitude of the sun, &c., at all times.

The best fitted up Globes have a compass above the stand, and also a horizontal motion, in the joint of the stand, which is very convenient in large instruments, as it enables the teacher to turn the instrument, without passing round it himself.

The instrument is accompanied by wires, by which it can be converted into a Planetarium. By elevating the North end of the axis 23½ degrees, and by bringing the traveller under the arctic circle, and by turning the Sphere till the ecliptic coincides with the horizon, the instrument will be converted into a planetarium, for the Globe within may represent the sun, the ecliptic the real passage of the Earth, and the horizon the plane of the ecliptic, and the different wires will represent the orbits of both the inferior and superior planets.

With equal simplicity the instrument can be used as a Tellurian, or be converted into a Sun Dial, and by it the principles of Dialing can be explained.

This instrument is accompanied by a pamphlet containing all the instructions for its use; and by a larger book, explanatory of the elements of Astronomy, and embracing all the problems of "Keith on the Globes," worked out on this Globe and Sphere.

The above instrument is manufactured by G. Vale & Son, No. 3, Franklin Square, (Pearl street,) New York. Prices, common size, for schools and families, from \$25 to \$30, packed. For High Schools and Institutes, from \$25 to \$35; packing extra.

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The peculiarities of CORNELL'S TERRESTRIAL GLOBE consist in representing the plane of the ecliptic in its true relative position, in whatever position the globe may be placed; and in having a day-circle turning on an axis, by which the line between day and night may be shown for any day in the calendar to which the index may be turned.

The leading principles of Geography and Astronomy may be illustrated on this globe, and the most important problems satisfactorily solved.

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S. AUGUSTUS MITCHELL.

CHAMBERLAIN'S

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THE following catalogue of apparatus has been introduced, not so much to show where such instruments can be obtained, as to answer the frequent inquiry, What assortment of philosophical apparatus would be well adapted to our school or academy, and what would it cost?

In the lists have been marked such articles as constitute a well-arranged set of apparatus; affording as many, if not more important illustrations in these branches of science than can be obtained by any other combination of instruments or sets of apparatus comprising the same number of articles. The economy of the selection and arrangement will be understood and appreciated by those familiar with the use of philosophical instruments, when we say that no less than twenty of the pneumatic instruments, in set marked ³, for two hundred and fifty dollars, may be used in connection with the electric, adding some thirty-five good experiments in the latter branch of science; while some fifteen of the pneumatic and several of the electric instruments may be transferred to, and used in connection with, the chemical apparatus, increasing considerably the number and importance of the experiments.

It will be seen that the sets are composed chiefly of such instruments as are absolutely essential to give a ready and clear illustration of the principles designed to be taught; that is, a machine is not employed when the idea can as well be given on the blackboard. On this point we find a great difference of opinion; while one requires an apparatus, or fixture for each experiment, and thinks that a very incomplete assortment which does not include at least one instrument for each illustration, another perfects many experiments with a single instrument, or at least, secures three, four or more complete illustrations by the use of two simple instruments.

In the selection of instruments composing the several sets, it has been sought to multiply experiments by bringing together such branches of science as admit of the instruments in each being properly constructed, and yet well adapted for illustrations in other departments of science; for instance, with a well arranged set of pneumatic apparatus we have many instruments with which to effect not a few fine experiments in chemistry, electricity, &c. This may account for the seeming undue prominence given to these branches of science in making up of sets.

We have little reluctance in offering to the notice, even of the common schools of our country, apparatus composed of such a variety of instruments, since the opinion now prevails, that the instructor should not only have the instruments, but possess the practical skill requisite to their proper use in illustrating and applying the principles of natural science.

The numbers and figures following refer to "Chamberlain's Illustrated Price Catalogue of Philosophical Instruments," "Electric Illustrations and Experiments," "Illustrated Catalogue of Chemical Apparatus," "Pneumatic Experiments and Illustrations," &c., in which a description of the instrument is given, with some two hundred and fifty experiments in pneumatics and hydrostatics, and some in electrics.

"Francis's Chemical Experiments" (more than two thousand experiments) will be found a valuable accompaniment of the chemical apparatus; while "Davis's Manual of Magnetism" treats of galvanism and its kindred topics, giving a list of experiments and illustrations which commend it to all who would avail themselves of the aid afforded by the experience of a scientific mechanic.

We may here state that the apparatus marked 3, has been furnished by Mr. Chamberlain to the following grammar schools in the city of Boston, at a cost of about two hundred and fifty dollars each set.

Franklin School,	Mayhew School,
Brimmer "	Smith "
Otis "	Dwight "
Phillips "	Winthrop "
Mather "	

The instruments marked 4 are such as have been approved and used in high schools and academies — cost about four hundred dollars — and have been furnished to the Normal Schools of Massachusetts, and others. The instruments marked 6 compose a set for the larger schools and academies, and have been furnished, among others, to the Putnam Free School, W. H. Wells, Principal, Newburyport, Mass.; Central High School, E. Smith, Principal, Cambridge, Mass.; High School, Worcester, Mass.; Monson Academy, Rev. C. Hammond; High School, New Bedford, Mass.; Boys' High School, Salem, Mass.; and to schools and academies in Providence, R. I., Philadelphia, Pa., Wilmington, Del., Hartford, Conn., Auburn, Ala., Burlington, N. J.; Williston Seminary, Easthampton, Mass.

APPARATUS.

MECHANICS, &c.

No.	Price.
1. Fig. 1. Glass Plates illustrating cohesive attraction, 3 and 4 inch diameter, .. ¹ 2 00	2 00
2. Set of Tubes and stand, illustrating capillary attraction, .. ¹ 2 00	2 00
3. Pair of Lead Hemispheres and Handles, for cohesive attraction, .. ¹ 1 50	1 50
4. Fig. 2. Frame and six Ivory Balls, for collision, action and reaction, elasticity, &c. .. ¹ 6 00	6 00
5. Frame and six Box-wood Balls, .. ¹ 4 00	4 00
6. Figs. 3 & 4. A set of eight illustrations for centre of gravity, .. ¹ 7 00	7 00
7. Fig. 5. Table with Spring Pistols and Ball, illustrating compound forces, &c. 6 00 & 8 00	6 00 & 8 00
8. Fig. 6. Whirling Machine, with eight illustrations of central and centrifugal forces, .. ¹ 8 00	8 00
9. Fig. 7. Atwood's machine for the laws of falling bodies, .. ¹ 50 00 & 100 00	50 00 & 100 00
10. Fig. 8. A set of Mechanical Powers arranged in a mahogany frame three and a half feet long and three feet high; each lever is eighteen inches long; four sets of pulleys strung with silk cord and well balanced; brass weights from 1 to 16 ounces; screw and lever with nut; screw as an inclined plane; ship capstan; wheel and axle; wedge in two parts; inclined plane with carriage; movable fulcrum and lever, for combining the power of screw and lever, .. ¹ 35 00	35 00

No.	Price.
11. Mechanical Powers, larger size, with five sets larger size pulleys; brass weights from 1 to 48 oz., two of each; wheel and axle, has seven graduations, and runs on friction rollers, .. ¹ 60 00	60 00
12. Mechanical Powers, arranged in rosewood frame, brass levers; brass wheel with steel axle, has gear and endless screw and crank attached to the wheel and axle; is in all respects a highly finished apparatus, .. ¹ 100 00	100 00
13. Hunter's Screw, in frame, .. ¹ 6 00	6 00

NOTE.—The stress in all the pulleys are unlike those generally used with philosophical instruments. They are of cast brass, tastefully swelled and finished, and enclose the pulleys, which turn on small steel pins, and are separated one from the other by partitions, which not only sustain the centre pin, but prevent the difficulty which occurs from the cords running off.

OPTICS.

14. Fig. 9. A set of Lenses two inches in diameter, edges finished, in box, .. ¹ 8 00	8 00
15. A set of Lenses two and a half inch, .. ¹ 10 00	10 00
16. A set of Lenses mounted, each lens in a Ring or Holder, which may be extended, raised, or lowered, as the experiment or illustration may require, .. ¹ 12 & 15 00	12 & 15 00
Section of six lenses, .. ¹ 4 00	4 00
17. Prisms, four, six, and eight inch, .. ¹ 2 & 3 00	2 & 3 00
Mounted Prisms, .. ¹ 2 & 6 00	2 & 6 00
18. Fig. 10. Compound Microscope, with one, two, and	

No.	Price.	No.	Price.
	three ivory slides, four objects on each; three powers, and the common fixtures and conveniences for using; is brass mounted and neatly cased, ²		a polished velvet lined mahogany case, ³
19.	Compound Microscope, with four powers, which may be used separately or combined; three slides with twelve objects, as No. 18; slides adjusted to the focus by rack and pinion; the usual fixtures and a list of the objects are cased with the instruments, ⁶	25.	Telescope, large size; 47 inch brass tube; 3 inch achromatic object glass; one eye-piece for Terrestrial and two for Celestial objects; rack and pinion adjustment for eye-piece; cased as No. 24; a superior and cheap instrument, at..... ¹⁵⁰
20.	Compound Microscope, large size, and mounted on brass tripod stand, has common fixtures, ⁷	26.	Fig. 16. Reflecting Telescope, five and a half feet long, mounted five and a half feet high on tripod stand, with vertical and horizontal motion by micrometer-gear and pinion, as represented in the cut, seven inch reflector; three small reflectors; three eye-pieces and Finder, ²⁰⁰
21.	Compound Microscope, large size, with six powers; six slides with transparent and opaque objects; a large condensing lens and other fixtures in keeping with a first-rate instrument, ²⁵	27.	Fig. 18. School Orrery, motion given by a crank, ¹⁷
22.	A large tripod-mounted Compound Microscope, with horizontal joint; six powers, twenty-four objects, and eighteen pieces for general use with the instrument, ... ⁴²		School Orrery, larger size, better finish, motion given to the moon around the earth, .. ¹⁰
There is accompanying, an accurate copperplate, illustrative of each microscope, with all its parts, and a minute description of their uses.		28.	Fig. 19. Spring Orrery, gold gilt planets; brass arms; 5 inch sun; stands two feet high; spreads 3½ feet from Herschel to Saturn; motion to the moon round the earth, .. ²⁵
23.	Models of the Human Eye, in three parts, ¹²		If motion is given to Jupiter's moons, ³⁵
Fig. 11.	The Eye in all its parts, (is four inches in diameter,) and dissectible, showing the Cornea, Iris, Ciliary Process, Choroid Tunic, Crystalline Lens, Vitreous Humor, Retina, Black Pigment, Optic nerve, &c.	29.	Fig. 20. Spring Orrery; brass mounted; extra finish; motion as above, ⁴⁵
Fig. 12.	The Eye in its socket with the muscles.	30.	Fig. 21. Seasons Machine, with five inch sun and three inch earth; motions all correct; giving the earth on its axis, round the sun, inclination to the north, aphelion and perihelion position; moon round the earth; moon's nodes; sun on his axis, &c., &c., ... ¹²
Fig. 13.	The Eye with rays of light passing from an object and forming the image on the retina. The object and image are movable, showing the cause of "long sight," "short sight," and "perfect sight."		& 12 00
Fig. 14.	Section view of Fig. 11.	31.	Fig. 22. Chamberlain's improved high mounted Globes, 13 inch diameter; stands 48 inches high, on iron legs, neatly bronzed, with castors; the pedestal or pillar is of mahogany, and receives the hub and shaft on which the Globe is mounted. This arrangement admits of a horizontal rotary motion to the whole globe, meridian and horizon. Price per pair, ⁷
ASTRONOMY, &c.			40 00
24.	Fig. 15. Astronomical Telescope on brass stand, 21-4 inch achromatic object glass, two eye-pieces or powers and sun-glasses, forty-six inches long, with four draws out, in	32.	Thirteen inch Globes, low mounted; pair, ⁶
			30 00
		33.	Ten inch Globes, high mounted, pair, ⁶
			30 00
		34.	Ten inch Globes, low mounted, pair, ¹⁸
			00
		35.	Six inch Globes, low mounted, pair, ²
			10 00

No.	Price.
36. Five inch terrestrial,.....	\$2 00
37. Fig. 17. Magic Lantern, with improved Solar Lamp and Reflector—condensing Lenses four inch diameter, will spread a two and half inch painting clear and distinct on a screen twelve feet diameter,.....	67 25 00

List of Slides adapted to the above lantern, and illustrative of subjects, as follows:—

NATURAL HISTORY.

IN 56 SLIDERS.

CLASS I. — MAMMALIA.—24 SLIDERS.

SLIDER I.

Human Skull — Orang-Outang — Long-armed Ape — Variegated Baboon.

SLIDER II.

Dog-faced Baboon — Proboscis Monkey — Fair Monkey — Coaita, or Four-fingered Monkey.

SLIDER III.

Slow Lemur — Ring-tailed Macauco — Flying Lemur — Spectre Bat.

SLIDER IV.

Peruvian Bat — Three-toed Sloth — Great Ant-eater — Porcupine Ant-eater.

SLIDER V.

Little Ant-eater — Duck-billed Platypus — Long-tailed Manis — Three-banded Armadillo.

SLIDER VI.

Six-banded Armadillo — Rhinoceros — Elephant — Female Elephant and Young.

SLIDER VII.

Sukotyro — Walrus — Common Seal — Crested Seal.

SLIDER VIII.

Newfoundland Dog — Wolf — Striped Hyena — Fennec.

SLIDER IX.

Lion — Lioness and Cubs — Tiger — Leopard.

SLIDER X.

Ounce — Serval — Ocelot Cat — Lynx.

SLIDER XI.

Ichneumon and Civet Cat — Polecat and Ferret — Striated Weasel and Chin-chilli.

SLIDER XII.

Otter — Polar Bear — Common Bear — Opossum.

SLIDER XIII.

Kangaroo — Mole and Radiated Shrew — Mulla and Common Hedge-hogs.

SLIDER XIV.

Porcupine — Brazilian Porcupine — Variegated and Spotted Cavies — Beaver.

SLIDER XV.

White Mouse and Canada Rat — Variegated and Maryland Marmot — Common and Flying Squirrels.

SLIDER XVI.

Gilt-tailed and Garden Dormice — Jerboas — Hare and Syrian Hyrax.

SLIDER XVII.

Dromedary — Camel — Lama — Thibet Musk.

SLIDER XVIII.

Elk — Reiu Deer — Fallow Deer — Doe.

SLIDER XIX.

Spotted Axis — Camelopard — Common Antelope — Female Antelope.

SLIDER XX.

Nilghau — Ibex — Angora Goat — Argali

SLIDER XXI.

Cretan Sheep — African Sheep — Bison — Zebu.

SLIDER XXII.

Musk Ox — Yak — Buffalo — Indian Ox.

SLIDER XXIII.

Zebra — Hippopotamus — Tapir — Babyroussa.

SLIDER XXIV.

Narwhal — Common Whale — Porpoise — Skeleton of Porpoise. 45 00

CLASS II. — BIRDS. — 7 SLIDERS.

SLIDER I.

Condor — Fulvous Vulture — Golden Eagle — Barn Owl.

SLIDER II.

Cockatoo — Scaly-breasted Parakeet — Green Toucan — Rhinoceros Bird.

SLIDER III.

Vaillantian Bird of Paradise — Red-throated Humming Bird — Summer Duck — Common Pelican.

SLIDER IV.

Patagonian Penguin — Red Flamingo — Rose-colored Spoonbill — Agami Heron.

SLIDER V.

White Stork — Common Crane — Numidian Crane — Chestnut Jaccana.

SLIDER VI.

Common Ostrich — Southern Apteryx — Galeated Cassowary — Hooded Dodo.

SLIDER VII.

Peacock — Argus Pheasant — Crowned Pigeon — Tailor Birds and Nest. 14 00

CLASS III. — AMPHIBIA. — 4 SLIDERS.**SLIDER I.**

Snake Tortoise — Green Turtle — Horned Frog — Pipa.

SLIDER II.

Flying Dragon — Crocodile — *Dracæna* Lizard — Basilisk.

SLIDER III.

American Guana — Chameleon — Siren — Banded Rattlesnake.

SLIDER IV.

Great Boa — Spectacle Snake — Crimson-sided Snake — Painted Snake. 8 00

CLASS IV. — FISHES. — 5 SLIDERS.**SLIDER I.**

Muraena — Electrical Gymnotus — Chordated *Stylophorus* — Gemmeous Dragonet.

SLIDER II.

John Doree — Turbot — Angle Fish — Rostrated *Chætodon*.

SLIDER III.

Pleat-nosed *Chætodon* — Long-finned *Chætodon* — Flying Gurnard — Telescope Carp.

SLIDER IV.

Horned Trunk-fish — Pyramidal Trunk-fish — Short Sun-fish — Sea-horse — Pipe-fish.

SLIDER V.

Foliated Pipe-fish — Harlequin Angler — Hammer-headed Shark — *Giorna Ray*. 10 00

CLASS V. — INSECTS. — 8 SLIDERS.

*N. B. Those marked with a * are magnified; the others are most of them under the natural size.*

SLIDER I.

Stag Beetle and **Curculio Bacchus* — Kangaroo Beetle and **Pausus Microcephalus* — **Asparagus Beetle* and *Cantharis Faciata*.

SLIDER II.

**Curculio Scropularia* and **Lampyrus Festiva* — Water Beetle and Larvæ — *Buprestis Ocellata* and **Attelabus Melanurus*.

SLIDER III.

Great Locust — Chinese Lantern-fly and Walking Leaf — Mole Cricket and **Cimex Prasinus* (two views.)

SLIDER IV.

Telemachus Butterfly, with Caterpillar and Chrysalis — *Sphinx Ocellata*, with Caterpillar and Chrysalis — Atlas Moth.

SLIDER V.

Dragon-fly and Larva — Nest of the Humble Bee — *Working and *Female Ants.

SLIDER VI.

*Golden Fly and *Ichneumon Ramidulus* — *Sheep Gad-fly and **Diopsis Ichneumonea* — *Human Louse and *Lice from different Birds.

SLIDER VII.

Termites, or White Ants, male and female — a magnified view of a Termite in the Pupa state (called a soldier;) in the upper part of the slider is a picture representing a distant view of the Habitations of the White Ants, in the foreground of which are several Laborers and a Soldier, of the natural size — a *Flea, with the Egg, Larva, and Pupa.

SLIDER VIII.

*A Cheese Mite and Garden Spider — Cancer Mantis — *Scolopendra Moritana*. 16 00

CLASS VI. — WORMS. — 8 SLIDERS.**SLIDER I.**

Serrated Tape-worm, natural size, with a separate view of the Head, highly magnified — *Nais Serpentina*, magnified — Sea Anemone — Brown *Holothuria*.

SLIDER II.

Phosphoric *Pyrosoma* — Eight-armed Cuttle-fish — Balloon Cuttle-fish — *Medusa Pulmo*.

SLIDER III.

Medusa's Head Star-fish — Duck Barnacle — Great Sea Pinna — Iceland Scallop.

SLIDER IV.

Paper Nautilus, with the animal seated in the shell — Pearly Nautilus, with the inhabitant — Tortoise-shell Limpet, and Veined Volute.

SLIDER V.

Snow-flaked Volute and Waved Turbo — Corded *Murex* — *Anguina Serpula* and *Serpula Vermicularis*, with the animal.

SLIDER VI.

Green Polypes, natural size and magnified — Sea-bristle Coralline, magnified to show its polype heads — *Tubularia Reptans*, magnified — Phosphoric Sea-Pen.

SLIDER VII.

Red Coral, with a small branch slightly magnified to show its polype heads — Thick-armed *Gorgonia* — Cinnamon Madrepora — *Madrepora*, *Patella*, and *Meandrites*.

SLIDER VIII.

Vorticella Racemosa and a group of Wheel Animals — a group of Bell Animals and a group of the *Vorticella Urcularis* and the Sun Animal — groups of the *Cercaria Mutabilis*, Globe Animals, and Paste Bels.

N. B. The animals in this Slider are Microscopic Animalcules. 16 00

BOTANICAL ILLUSTRATIONS.

IN 14 SLIDERS, WITH COMPENDIUM.

SLIDER I.

1. Cellular Tissue.
2. Cellular Ducts.
3. Woody Fibre.
4. Spiral Vessels.

SLIDER II.

5. Spiral Vessels in Leaf.
6. Vascular Ducts.
7. Forms of Roots.
8. Forms of Stem.

SLIDER III.

9. Section of Exogenous Stem.
10. Section of Sassafras Wood.
11. Sections of Endogenous Stem.

SLIDER IV.

12. Fern Stem.
13. Forms of Leaves.
14. Leaf of Gleditsia.
15. Pitches of Nepenthes, &c.

SLIDER V.

16. Pitcher of Dischidia.
17. Cuticle and Stomata.
18. Section of Apple Leaf.
19. Section of Oleander Leaf.

SLIDER VI.

20. Forms of Stamens.
21. Structure of Pistil.
22. Monstrous Carpels.
23. Structure of Seed-vessel.

SLIDER VII.

24. Process of Fertilisation.
25. Germination of Seed.
26. ALGÆ: (Sea-weeds.)
27. LICHEN: Iceland Moss.

SLIDER VIII.

28. FUNGUS: Amanita.
29. Rafflesia Arnoldi.
30. CHARA Flexilis.
31. Moss: Bryum caespiticum.

SLIDER IX.

32. TREE-FERN.
33. ENDOGENS: Saccharum officinale, (Sugar-cane.)
34. Phoenix dactylifera, (Date Palm.)
35. Colchicum autumnale, (Meadow Saf-
fron.)

SLIDER X.

36. Zingiber officinale, (Ginger Plant.)
37. EXOGENS: Zamia horrida.
38. Atropa belladonna, (Deadly Night
Shade.)

SLIDER XI.

39. Linaria communis, (Snap-Dragon.)
40. Convolvulus major.
41. Ericace, (Heaths.)

SLIDER XII.

42. Anthemis pyrethrum, (Pellitory.)
43. Tamarindus Indica, (Tamarind.)
44. Camelia Japonica.

SLIDER XIII.

45. Passiflora magniflora, (Grenadilla.)
46. Cardamine pratensis, (Lady's Smock.)
47. Ficus carica, (Fig.)

SLIDER XIV.

48. Cactus speciosissima.
49. Ligusticum Scoticum.
50. Myristica moschata, (Nutmeg.) 30 00

SELECT SCRIPTURE SUBJECTS.

IN 12 SLIDERS.

SLIDER I.

- Adam and Eve driven out of Paradise.
Gen. iii. 24.
Hagar and Ishmael ... Gen. xxi. 14.
Isaac blessing Jacob .. Gen. xxvii. 27.

SLIDER II.

- Joseph sold into Egypt.
Gen. xxxvii. 23.
Joseph meeting his Father.
Gen. l. 1.
The finding of Moses... Exod. ii. 6.

SLIDER III.

- The Ark of the Covenant.
Exod. xxv. 10.
The Dress of the High Priest.
Exod. xxviii. 4.
The Altar of Incense... Exod. xxx. 1.

SLIDER IV.

- The Altar of Burnt-Offering.
Exod. xxvii. 1.
An Aaronite or Scribe.
Exod. xxviii. 40.
The Golden Candlestick,
Exod. xxv. 31.

SLIDER V.

- Return of the Spies ... Num. xiii. 23.
The Brazen Serpent... Num. xxi. 9.
Balaam and his Ass... Num. xxii. 22.

SLIDER VI.

- Samson and the Lion... Jud. xiv. 6.
Presentation of Samuel.
1st Sam. i. 23.
Samuel in the Temple. 1st Sam. iii. 10.
Elijah fed by Ravens... 1st Kings, xvii. 6.

SLIDER VII.

- David and Goliath.... 1st Sam. xvii. 51.
David dancing before the Ark.
2d Sam. vi. 14.
Nathan reproving David.
2d Sam. xii. 7.

SLIDER VIII.

- The Annunciation..... Luke i. 28.
The Birth of Christ... Luke ii. 16.
Christ brought to the Temple.
Luke ii. 22.

SLIDER IX.

- The Flight into Egypt.
Matt. ii. 13.
The Holy Family..... Mark i.
Christ and the Woman of Samaria.
John iv. 7.

SLIDER X.

Christ stilling the Tempest.

*Matt. viii. 24.*The Good Samaritan... *Luke x. 30.*

The Lord of the Vineyard and Laborer.

Matt. xx. 12.

SLIDER XI.

The Return of the Prodigal Son.

*Luke xv. 20.*Trial of Peter's Faith... *Matt. xiv. 29.*Herodias with the Head of John the Baptist..... *Mark vi. 28.*

SLIDER XII.

The Crucifixion..... *John xix. 30.*

The Women at the Sepulchre.

*Mark xvi. 5.*The Resurrection..... *Matt. xxviii. 9.*

The Disciples at Emmaus.

Luke xxiv. 31.

25 00

PORTRAITS OF KINGS AND
QUEENS OF ENGLAND.FROM WILLIAM THE CONQUEROR TO
VICTORIA.

IN 9 SLIDERS.

SLIDER I.

William the Conqueror. — William II. —
Henry I. — Stephen.

SLIDER II.

Henry II. — Richard I. — John. — Hen-
ry III.

SLIDER III.

Edward I. — Edward II. — Edward III.
— Richard II.

SLIDER IV.

Henry IV., of Bolingbroke. — Henry V.,
of Monmouth. — Henry VI., of Wind-
sor. — Edward IV.

SLIDER V.

Edward V. — Richard III. — Henry VII.
— Henry VIII.

SLIDER VI.

Edward VI. — Mary I. — Elizabeth —
James I.

SLIDER VII.

Charles I. — Charles II. — James II.

SLIDER VIII.

William III. and Mary II. — Anne, of
the Stuart family. — George I., of
Hanover. — George II.

SLIDER IX.

George III. — George IV. — William IV.
— Victoria.

15 00

VIEWS OF PUBLIC BUILDINGS,
&c.

IN 4 SLIDERS.

SLIDER I.

View of Saint Paul's Cathedral, London.

— The Pavilion, at Brighton. South-
wark Bridge, London.

SLIDER II.

View of Westminster Abbey. — View of
the Cataract of Niagara. — Waterloo
Bridge, London.

SLIDER III.

Saint Peter's Church, at Rome — Fin-
gal's Cave — The Pantheon, at Paris.

SLIDER IV.

View of Mount St. Michael, Cornwall. —
The Military Hospital, Paris. — View
of the Island of Staffa.

8 00

ASTRONOMICAL DIAGRAMS.

IN ELEVEN SLIDERS, PACKED IN A BOX,
WITH A DESCRIPTION.

No. SLIDER I.

1. System of Ptolemy.
2. ————— Copernicus.
3. ————— Tycho Brahe.
4. ————— Newton.

SLIDER II.

5. Telescopic View of the Moon.
6. Ditto of Jupiter.
7. ————— Saturn.

SLIDER III.

8. Comparative Sizes of the Planets.
9. Comparative Distances of the Planets.
10. Orbit of a Comet.
11. The Comet of 1811.

SLIDER IV.

12. Signs of the Zodiac.
13. Inclination of the Planets' Orbits.
14. Direct and Retrograde Motion.

SLIDER V. (*Lever, movable.*)

15. Rotundity of the Earth.

SLIDER VI.

16. The Seasons.
17. Phases of the Moon.
18. The Earth's Shadow.

SLIDER VII.

19. Cause of the Sun's Eclipse.
20. Ditto Moon's ditto.
21. Inclination of the Moon's Orbit.

SLIDER VIII. (*movable.*)

22. Eclipse of the Sun, with a Transit of
Venus.

SLIDER IX. (*movable.*)

23. Eclipse of the Moon.

SLIDER X.

24. Spring Tide at New Moon.
25. Ditto Full Moon.
26. Neap Tide.

SLIDER XI.

27. The Constellation Orion.
28. ————— Ursa Major.
29. Various Nebulae.
30. A Portion of the Milky Way.

20 00

CONSTELLATIONS.

IN 6 SLIDERS.

Their situation with regard to the North Pole is denoted by an Arrow.

SLIDER I.

Aries — Taurus — Gemini — Cancer.

SLIDER II.

Leo — Virgo — Libra — Scorpio.

SLIDER III.

Sagittarius — Capricornus — Aquarius — Pisces.

SLIDER IV.

Draco and Ursa Minor — Cepheus and Cassiopea — Andromeda and Triangula — Auriga.

SLIDER V.

Perseus and Caput Medusæ — Boötes and Canes Venetici — Hercules and Cerberus — Cygnus and Lyra.

SLIDER VI.

Antinous and Aquila — Ophiucus and Serpens — Canis Major and Minor — Cetus,

\$9 00

ASTRONOMICAL DIAGRAMMS.

In a Set of 30 Three-Inch Sliders, Double Glass, each Diagram framed separate.

- No. 1. System of Ptolemy.
2. ————— Copernicus.
3. ————— Tycho Brahe.
4. ————— Newton.
5. Telescopic View of the Moon.
6. Ditto at three different periods of its increase.
6. Ditto of Venus, with Phases, (three Views.)
6. Ditto of Mars.
6. Ditto of Jupiter.
7. Ditto of Saturn.
8. Comparative Sizes of the Planets.
8. Ditto, the colored Circle representing the Sun.
9. Comparative Distances of the Planets.
10. Orbit of a Comet.
11. Comet of 1811.
12. Signs of the Zodiac.
13. Inclination of the Planets' Orbits.
14. Direct and Retrograde Motion.
16. The Seasons.
17. Phases of the Moon.
18. The Earth's Shadow.
19. Cause of the Sun's Eclipse.
20. Ditto Moon's ditto.
21. Inclination of the Moon's Orbit.
27. The Constellation Orion.
28. ————— Ursa Major.
29. Various Nebulæ.
30. A Portion of the Milky Way.
30. A Diagram to show *Meridians, Parallels, and Circles.*
30. A Diagram, showing the various Zones,

\$30 00

REVOLVING ASTRONOMICAL DIAGRAMMS.

THE MOTION PRODUCED BY RACK-WORK.

In a Set of Nine Sliders, packed in a Box, with a Lock.

SLIDER I.

The Solar System, showing the Revolution of all the Planets, with their Satellites, round the Sun.

SLIDER II.

The Earth's Annual Motion round the Sun, showing the Parallelism of its Axis, thus producing the Seasons.

SLIDER III.

This Diagram illustrates the cause of Spring and Neap Tides, and shows the Moon's Phases, during its Revolution.

SLIDER IV.

This Diagram illustrates the Apparent Direct and Retrograde Motion of Venus or Mercury, and also its Stationary Appearance.

SLIDER V.

A Diagram to prove the Earth's Rotundity, by a Ship sailing round the Globe, and a line drawn from the eye of an observer placed on an eminence.

SLIDER VI.

This Diagram illustrates the Eccentric Revolution of a Comet round the Sun, and shows the appearance of its Tail at different points of its Orbit.

SLIDER VII.

The Diurnal Motion of the Earth, showing the Rising and Setting of the Sun, illustrating the cause of Day and Night, by the Earth's Rotation upon its Axis.

SLIDER VIII.

This Diagram illustrates the Annual Motion of the Earth round the Sun, with the Monthly Lunations of the Moon.

SLIDER IX.

This Diagram shows the various Eclipses of the Sun with the Transit of Venus; the Sun appears as seen through a Telescope,

\$40 00

PNEUMATICS.

- | No. | Price. |
|---|----------|
| 1. Fig. 1. Air Pump, (Chamberlain's American;) rose-wood frame, polished; barrel, 13 by 4½ inches; large plate, 15 inches; small do., 6 inches; three gauges, | \$150 00 |
| 2. Air Pump, superb mahogany frame, polished; barrel 13 by 4½ inches; plate 15 inches; barometer gauge; otherwise as No. 1, | 125 00 |
| 3. Air Pump, plain mahogany | |

No.		Price.	No.		Price.
	frame, varnished; plate 13 inches; otherwise as No. 2,.....	\$100 00	27.	Fig. 21. Sliding-Rod and Packing-Screw, with regulating Binding-Screws,.....	12 00
4.	Fig. 2. Air Pump, rose-wood frame, polished; barrel 12 by 4 inches; plate 12 inches; barometer gauge,.....	100 00	28.	Fig. 22. Sliding-Rod and Packing-Screw, with Ball-Handle; (used with Electrics,).....	1 50
5.	Air Pump, extra finished; rose-wood frame, polished; plate 12 inches; barrel 11 by 3½ inches; barometer gauge,...	85 00	29.	Fig. 23. Swelled Bell-Glasses; six sizes; one gallon, \$1 25; two galls., \$2 00; four galls., \$4 00; eight galls., \$7 00; ten galls., \$8 00; twelve galls., \$10 00; and ground to fit the six different size pump-plates.	
6.	Air Pump, mahogany frame, varnished; plate 12 inches; barrel 11 by 3½; common finish,.....	75 00	30.	Fig. 24. Swelled Open-Top Bell-Glasses; six sizes; capacities and dimensions as No. 29; one gallon, \$2 00; two galls., \$3 50; four galls., \$4 50; eight galls., \$8 00; ten galls., \$9 00; twelve galls.,	12 00
7.	Fig. 3. Air Pump, two barrels, 7 by 2 inches; plate 8 inches; works with double lever; mahogany basement,.....	35 00	31.	Fig. 25. Plain Bell-Glasses; eight sizes; half pint, 30 cents; pint, 50 cents; quart, 75 cents; two quarts, \$1 00; gallon, \$2 00; two galls., \$3 00; four galls., \$4 00; six galls.,	5 50
8.	Air Pump, as above mounted, on rose-wood basement, with parts extra finished,	40 00	32.	Fig. 26. Bell-Glasses with Glass Stoppers; eight sizes; half pint, 40 cents; pint, 60 cents; quart, \$1 00; two quarts, \$1 25; three quarts, \$1 50; gallon, \$2 25; six quarts, \$3 00; two galls.,...	4 00
9.	Air Pump, as above mounted, on a splendid serpentine basement, extra finished in every particular,	45 00	33.	Fig. 27. Bell-Glasses with brass Screw-Caps, to receive a stop-cock, connector, sliding-rod, &c.; six sizes; two quarts, \$1 50; three quarts, \$2 00; four quarts, \$2 50; six quarts, \$3 00; eight quarts, \$4 50; ten quarts,	5 50
10.	Fig. 4. Air Pump, one barrel, 7 by 2 inches; works with lever; plate 8 inches,.....	25 00	34.	Fig. 28. Cylindrical Open-Top Bell-Glass, with Glass Cap; two quarts, \$2 00; four quarts, \$3 00; eight quarts,	5 00
11.	Fig. 5. Air Pump, English form; two barrels, two plates, 8 and 4 inch; works with rack and pinion,.....	40 00	35.	Fig. 29. Hand Glass, to show pressure of the air,.....	34 75
12.	Fig. 6. Air Pump, two barrels; one plate, 8 inch,.....	25 00	36.	Fig. 30. Bladder Glass; may be used as a Hand Glass,	1 00
13.	Fig. 7. Air Pump, plate, 6 inch; one barrel, 7 by 1½ inch; piston works by a T handle, ..	10 00	37.	Fig. 31. Bladder-Cup, Cap, and Cock, to use with Condenser and Condensing Chamber, or under a Bell-Glass; is used for the Sheet Rubber experiments, &c.,.....	2 00
14.	Fig. 8. Chamberlain's Double Acting Exhauster and Condenser; barrel 7 by 1½ inches, ..	8 00	38.	Fig. 32. Cupping Glass, with Cap and Cock,.....	1 50
15.	Fig. 9. Condensing Syringe; barrel 7 by 1½,.....	5 00	39.	Fig. 33. Hemispherical Cups, with Cock, Handles, and Stand; 5 inch diameter,...	7 00
16.	Fig. 10. Stop-cock, large screw; 3 inch, \$1 00; 3½ inch, \$1 25; 4 inch, \$1 50; 4½ inch, \$2 00; 5 inch,	2 50	40.	Hemispherical Cups, with Cock, Handles, and Stand; 3 inch diameter,.....	5 00
17.	Fig. 11. Stop-cock, small screw, 70 cents; 1½ inch, 80 cents; 2 inch, 90 cents.		41.	Fig. 35. Stand, Lever, and Fulcrum, used with Hemi-	
18.	Fig. 12. Connecting-Screw; fits pump-plate,	57 50			
19.	Fig. 13. Double Female Screw-Coupling,.....	57 50			
20.	Fig. 14. Guard-Screw; fits pump-plate,.....	57 50			
21.	Fig. 15. Screw-Plug, for closing brass caps, &c.,.....	57 50			
22.	Fig. 16. Double Female Coupling, large and small screw,	57 50			
23.	Fig. 17. Gallows-Connector and Tip; male screws,.....	1 25			
24.	Fig. 18. Gallows-Connector and Tip; female screws,...	1 25			
25.	Fig. 19. Flexible Hose and Screw-Connector, four feet, ..	2 00			
26.	Fig. 20. Sliding-Rod and Brass Plate, with fixtures,.....	5 00			

No.	Price.	No.	Price.
spherical Cups, for weighing a column of air,.....	75 00	56. Fig. 49. Air Gun-Barrel, 3456	1 00 and71 25
42. Fig. 37. Apparatus illustrating the upward pressure of the atmosphere; Glass Cylinder, 4 $\frac{1}{2}$ inches diameter, 12 long; with Piston; 5 inch brass plate, Hose, and Screws, Strap for connecting weight, and Tripod Stand, three feet high,.....	12 00	57. Fig. 50. Plate Paradox and Disc, 4 $\frac{1}{2}$ 1 00 and67 1 25	
43. Upward Pressure Apparatus; Glass Cylinder, 3 $\frac{1}{4}$ by 10 inches; 4 inch Brass Plate; Hose, Strap, and 30 inch Stand,.....	67 9 00	58. Fig. 51. Pipe and Ball Paradox, 4 $\frac{1}{2}$ 1 00 and67 1 25	
44. Fig. 38. Upward Pressure Apparatus; Cylinder, 3 by 9 inches; Brass Plate, 3 $\frac{1}{4}$ inches; Hose, Strap, and Stand,.....	3456 00	59. Fig. 52. Flexible Hose and Jet,.....	34567 1 00
45. Fig. 39. Brass Cylinder and Piston, with Weight, to illustrate the power of expanding air,.....	4 00	60. Fig. 53. Brass Jet, for water, air, gas, &c., 3456 50 cents and 775	
46. Fig. 40. Expansion Fountain for vacuum, or by condensation,.....	4 00	Fig. 54. Revolving Jet and Stand,.....	34567 1 25
47. Fig. 41. Revolving Jet in vacuo, with a stand. This is figured and arranged for several experiments, and referred to in some ten or twelve following,.....	34567 1 25	Globe Jet; see Exp. 15, page 25, 1 25	
48. Fig. 42. Bursting Squares, for expansion or pressure; per dozen, boxed,.....	4567 1 50	Revolving Stand, for Condensing Chamber, &c.,.....	1 25
49. Fig. 42. Wire Guard, for Bursting Squares, 475.....	5671 00	Single straight Jet,.....	1 00
50. Fig. 43. Brass Cap Valve, for bursting Squares,.....	4567 25	61. Reaction, or Revolving Wheels, \$1 25 and 2 00	
51. Fig. 44. Revolving Jet and Fountain in vacuo,.....	2 50	62. Double Revolving Jet,.....	2 00
52. Revolving Jet and Fountain in vacuo, with valves by which the water returns to the chamber as the air is let into the bell-glass, and the experiment repeated,.....	3 50	63. Fig. 55. Improved Glass Condensing Chamber; capacity, two quarts; one inch thick; Screw-Cap and Stop-Cock, 7 10 00	
53. Fig. 45. Fountain in vacuo, the treble globe, or liquid transferrer,.....	73 00	Pressure Gauge, for experiments with Glass Chamber, 7 1 00	
Fig. 46. Explains Revolving Jet by external pressure, &c.		Square Vials, for experiment with condensed air in glass chamber. per dozen,.....	7 1 00
54. Fig. 47. Condensing Chamber, &c., arranged for experiments, and figured for explanations; Chamber and Cock,.....	34567 3 50	Horizontal Connecting Piece, for glass chamber,.....	75
Cock, with interior and exterior jets,.....	4567 2 00	Bell, for condensed air in glass chamber,.....	7 1 00
Water-Pan and Tube, 6,.....	4567 75	64. Fig. 56. Large Copper Condensing Chamber, ten inches diameter, with Stop-Cock and Interior Jet,.....	10 00
Paradox Tunnel, Jet, and Balls,.....	4567 1 50	Fig. 57. Long Jet, for experiments with fountains,.....	50
55. Fig. 48. Condensation Gauge and Stand, syphon form, in glass case; two sizes, 72 50 and 3 00		65. Fig. 58. Artificial Fountain, with Cock, Jets, and Stand, 3453 00 and675 00	
		66. Fig. 59. Bolthead, \$1 00 and 71 50	
		Glass Jars, for various experiments, 3 25 cents, and...4567 1 00	
		67. Fig. 60. Bacchus in vacuo; brass mounted,.....	5 00
		68. Fig. 61. Bacchus illustrated, 1 50 and73 00	
		69. Fig. 62. Sheet Rubber Bags, with cap and hook, 3451 50 and672 00	
		70. Fig. 63. Lungs Glass, illustrating the mechanical action of the lungs, \$2 00 and 3 00	
		71. Fig. 64. Bell-Glass, Jar, and Bolthead, illustrating the expansion of air, &c., 3456 1 00 and72 00	
		72. Fig. 65. Brass Plate and Wood Cylinder, illustrating the porosity of wood, pressure of air, &c.,.....	1 00
		73. Fig. 66. Wood Cylinders and Weights, for sinking in water, after the air is removed from the pores, 15 cts., and 25	
		74. Fig. 67. Mercury Tunnel, for showing porosity of wood,	

No.	Price.	No.	Price.
75.		90.	
Fig. 68. Float Wheel, illustrating the resistance of air, ³⁴⁵⁶⁷ 1' 00		Fig. 83. Apparatus illustrating the weight and buoyancy of air, gas, &c., (several experiments; see book,) \$4 00	
76.		and ³⁴⁵⁶⁷ 6 00	
Fig. 69. An illustration of the materiality of air. (Each part has been priced separately.) ³⁴⁵⁶⁷		91.	
77.		Fig. 84. Scales for weighing air, gas, &c.; brass beam, 18 inch; copper globe, 6 inch; scale pans and bows; sensitive to one tenth of a grain, 18 00	
Fig. 70. An improved Vane and Mill, for vacuo, ⁷ 7 00		92.	
78.		Fig. 85. Stand, with graduated Scale Beam, and 6 inch Copper Globe, for weighing air, gas, &c., 12 00	
Fig. 71. Tall Conical Guinea and Feather Glass, three feet high, \$4 00; three and a half feet, \$6 00; four feet high, eight inch diameter at bottom, four inch at top, ... 8 00		Small size, as above, with 4 inch globe, 8 00	
Brass Plate to use with Guinea and Feather Tube, four and five inches diameter, \$2 00 and 3 00		93.	
Sliding-Rod and Drop Button, for guinea and feather experiment; see Fig. 20.		Fig. 86. Weighing Air and Specific Gravity Scales; 6 inch Copper Globe; 24 inch fine wood beam; has an elevating stand and binding-screw, to adapt to hydrostatic experiments, ⁷ 12 00	
Drop Tables (4) for guinea and feather experiment, 2 00		94.	
79.		Fig. 87. Bell-glass graduated to cubic inches, Stop-cock and Connector, for measuring air or gas for weighing; capacity, 200 cubic inches, Graduated Bell-Glass as above, 100 cubic inches, with Cap, Cock, and Connector, 3 00	
Fig. 72. Guinea and Feather Tube, capped both ends; has Stop-cock and Stand, Ball and Point for Electricity, &c., for vacuum or condensed air; (see experiments;) 3 feet long, ³⁴⁵⁶ 5 00; four feet, ⁷ 7 00; 5 feet, \$8 00; 6 feet, \$10 00; 8 feet, 12 00		95.	
80.		Fig. 88. Syphon in vacuo, with Bell-Glass, Tunnel, Cock, and Jet, two sizes, 4 00 and ⁷ 6 00	
Fig. 73. Philosophical Water Hammer, \$1 00 and 2 00		96.	
81.		Fig. 89. Glass Balloon and Car, in glass jar, three sizes; 15 inch jar, \$3 00; 18 inch, \$4 00; and 24 inch, 5 00	
Fig. 74. Philosophical Water Hammer, with brass Cup and Stop-cock, for exhausting, ³⁴⁵⁶⁷ 3 00 and 4 00		97.	
82.		Fig. 90. Hydrostatic Balloon, with tall jar and Bell-Glass; 18 inch, ³⁴⁵⁶⁷ 4 00; 24 inch, 5 00	
Fig. 75. Stout Syphon Barometer, with brass Cap, and Stop-cock, for exhausting, &c., 5 00		98.	
83.		Fig. 91. Glass Flask, with Cap and Stop-cock, for boiling water in vacuum, or under pressure, \$2 00 and 3 00	
Fig. 76. Apparatus illustrating the absurdity of suction, 36 inches high, without exhausting syringe, 5 00		Small Thermometer to suspend in the flask, 75 cents and .. 1 00	
84.		Spring Safety Valve, for the above flask, \$1 00 and ² 1 00	
Fig. 77. Barometer in vacuo, (complete,) ³⁴⁵ 3 00		99.	
85.		Fig. 92. Double Transferrer, with six inch Plates, fourteen inch Bar, and three Stop-cocks; on mahogany stand, 15 00	
Fig. 78. Chamberlain's improved Torricellian Barometer, with Sliding-Rod, Hook, &c., ⁶⁷ 7 00		Double Transferrer, with five inch Plates, eight inch Bar, three Cocks, on Stand, ⁷ 10 00	
86.		Fig. 93. Single Transferrer; has a brass capped two-quart Bell-Glass, Stop-cock, Brass Plate, Jet, and small Bell-Glass; (is made up of parts before enumerated,) ³⁴⁵⁶⁷ 6 00	
Fig. 79. Barometer arranged to use in connection with the air pumps, as a gauge, \$3 00 and 5 00		100.	
87.		Fig. 94. Freezing Apparatus; 4½ inch, \$1 25; 6 inch, \$2 00; 8 inch, ³⁴⁵ 3 00;	
Fig. 80. Syphon Gauge, in glass case, with stand, ³⁴⁵⁶² 50 and ⁷ 3 50			
88.			
Fig. 81. Pear Gauge, for determining the actual bulk of air exhausted from a bell-glass, (without sliding-rod,) ⁷ 3 00			
89.			
Fig. 82. Bell and Stand, for vacuo, ³ 1 25 and ⁷ 2 50			

No.	Price.	No.
	10 inch, \$4 00; 12 inch, \$7 00; 15 inch,.....	\$8 00
102. Fig. 95. Freezing Apparatus, with Thermometer and tall glass with brass Cap and Sliding-Rod; 4½ and 6 inches, \$4 00 and.....	6 00	
103. Fig. 96. Apparatus arranged to freeze one quart of water at a time, with any of the five largest air pumps,....	12 00	
104. Fig. 97. Freezing Apparatus, with Tunnel, Stop-cock, and Jet; 8 inch, \$4 00; 10 inch, \$6 00; 12 inch, \$8 00; 15 inch,.....	10 00	
105. Fig. 98. Improved Water Cups, to use with freezing apparatus, from 15 cents each to.....	34 50 75	
106. Fig. 99. Apparatus for freezing water by the evaporation of ether, \$1 00 and..	2 00	
107. Fig. 100. Cryophorus in vacuo, with brass Plate; the water is frozen in the outer ball, from the condensation of the vapor in the ball with the bell-glass, \$4 00 and..	6 00	
108. Fig. 101. Bell-Glass, with glass Bulb and Tube, and spirit Thermometer, for freezing mercury by the cold produced from the evaporation of ether, \$4 00 and.....	6 00	
Tubes and Bulbs filled with mercury, for breaking, after being frozen, 15 to 25 cents each.		
109. Fig. 102. Freezing Apparatus with Thermometer and Sliding-Rods, adapted to the larger pumps; 12 inches diameter, \$8 00; 15 inches,.....	10 00	
110. Fig. 103. Tunnel, Stop-cock, and Jet, for introducing mercury, acid, ether, alcohol, water, &c., into an exhausted bell-glass, \$2 00 and.....	7 8 00	
111. Fig. 104. Apparatus for exploding gunpowder in vacuo; used also for other purposes; \$3 00 and.....	5 00	
112. Fig. 105. Lock for striking flint and steel in vacuo, \$2 00 and.....	3 00	
Leather Collars for Stop-cocks, assorted, per hundred,	34 50 75	
Oil prepared to use with Philosophical Instruments, per ounce, in vial,.....	34 50 75	
Brass Caps for bell-glasses, from one half to two inches diameter, from 15 to.....	50	

Iron Stop-cocks, to use with mercury; size and price as No. 16 and 17, page 340.

HYDROSTATIC AND HYDRAULIC APPARATUS.

1. Fig. 1. Equilibrium Tubes and Stand, best finish,.....	\$11 00
Second quality,.....	2 00
2. Fig. 2. Hydrostatic Paradox and fixtures complete, best quality, largest size,.....	25 00
Hydrostatic Paradox, as above, second quality,.....	18 00
Hydrostatic Paradox, fixtures, without the Stand and Scale-beam,	8 00
A set of Avoirdupois (brass) Weights, from one half to sixteen ounces,.....	5 00
A set of Troy Weights, from one half to twelve ounces,..	3 00
Graduated Glass Jar, two hundred cubic inches,.....	2 00
3. Fig. 3. Glass Hydrometer, better finish, with weight adjusting to all liquids,....	1 50
4. Glass Hydrometer, large size, zero or water mark in the centre of the scale, is adapted to all liquids,.....	2 50
5. Glass Hydrometers, cheap finish, graduated for water or ether,.....	1 00
6. Fig. 4. Hydrometer Jar, with foot and lip; ten cubic inches, \$1 50; twenty cubic inches, \$2 00; thirty cubic inches, \$2 25; fifty cubic inches,	2 50
7. Plane Hydrometer Jars, ten inches high, 75 cts.; twelve inches, \$1 00; fifteen inches, 1 25; twenty inches,.....	1 50
8. Fig. 5. Graduated Tubes, for specific gravity,.....	50
9. Fig. 5. Hydrostatic Bellows, twelve inches square, six feet brass tube, in two joints,	6 00
10. Fig. 6. Hydrostatic Bellows, best quality, double lined, extra tubes, &c.,.....	7 8 00
11. Fig. 7. Hydrostatic Bellows, circular twelve inch, with six feet brass tube in two joints, Fig. 7. Hydrostatic Bellows, as No. 11, with extra glass tube, with sockets and tunnel, and inch square tube and tunnel,.....	5 00
12. Fig. 8. Forcing Pump, or Fire Engine, with Stand, Cistern, and Hose,.....	8 00
Lifting Pump, glass Barrel, with Stand, Cistern, and Receiving Tunnel,.....	6 00

No.	Price.	No.	Price.
Both the above on one stand, with Cistern,.....	12 00	points, and crooked neck and ball, for suspending to conductor, one and two quarts, \$1 25 and	3 50
13. Fig. 9. Archimedes Screw Pump, with Stand and Cistern,.....	6 00	11. Leyden Jars, with sliding Discharger, two and four quarts, \$4 00 and	6 00
14. Screw Pump, on a large scale, and more highly finished,...	10 00	12. Insulating Stand, with Jar and Electrometers,	4 00
15. Fig. 10. Brass Syphon, with Suction Tube, Glass Jar, Stand, and Receiving Basin; largest size,.....	5 00	13. Diamond or Luminous Jars, two and four quarts, 3 45 87	3 00 and.....
16. Syphon and Suction Tube, as above,.....	1 50	14. Leyden Jars, with movable coatings, one and two quarts, \$1 50 and	3 50
Glass Syphon and Suction Tube,.....	1 25	15. Double Leyden Jars, one and two quarts,.....	3 50
Wurtemberg Syphon, of Glass, 50 cents, and.....	75	16. Electrometer Jars, one and two quarts, 3 45 81 50 and..	2 50
17. Cylindrical Glass Jar, with Ball, Plate, and Hook, illustrating upward and downward pressure of fluids; small size, \$2 00; large size,	4 00	17. Electric Batteries, four quart Jars, cased, 4 6 00; six quart Jars, cased, \$8 00; four two quart Jars, cased, \$10 00; six two quart Jars, cased, 7 14 00; six three quart tall Jars, cased, \$18 00; twelve two quart Jars, cased,.....	24 00
18. Syphon and Cup, or Tantalus's Cup,.....	1 50	18. Sliding Directing Rod, three and four feet long, 3 45 82 00 and.....	3 00
19. Fig. 11. Vacuum Syphon, or Fountain Syphon, with Basins, \$2 00 and	3 00	19. Single Spiral Spotted Tube and Stand, 3 45 82 50 and..	3 00
20. Fig. 12. Hero's Fountain,....	6 00	20. Set (7) Spiral Spotted Tubes and Revolving Arm, mounted on stand; two feet long, \$15 00; three feet,.....	25 00
21. Fig. 13. Barker's Mill, \$3 00 and.....	5 00	21. Stand for luminating Eggs, \$2 00 and	3 00
Glass model of the Centrifugal Pump, \$6 00 and	8 00	22. Luminous Letters, six and twelve inches square, on silk and in frame; seen day or night; per letter, 50 cents and.....	75
23. Apparatus illustrating the laws of the spouting of fluids, \$10 00 and.....	20 00	23. Luminous Star, on glass, mounted,.....	4 00
24. Fig. 14. Working model of the Hydraulic Press, cheap finished, \$20 00; best finished,	25 00	24. Profile of Franklin, spotted on glass, and mounted,.....	4 00

ELECTRIC APPARATUS.

1. An eighteen inch plate Electric Machine,.....	25 00	25. Insulated Director,	2 00
2. A twenty-four inch plate Machine,	50 00	26. Plane Discharger,	2 50
3. A thirty inch plate Machine, ..	75 00	27. Jointed Discharger, large size, ..	3 50
4. A thirty six inch plate Machine,	100 00	28. Universal Discharger,.....	6 00
5. A forty inch plate Machine, ..	125 00	29. Universal Discharger, with movable balls, points, and pincers,.....	7 00
6. A forty-eight inch plate Machine,	150 00	30. Revolving Bell Glass, with point and ring, \$2 00 and ..	2 50
7. Two forty-eight inch plates on one shaft; four pair of fifteen inch rubbers, and two negative conductors,.....	300 00	31. Lane's Sliding Discharger, \$3 00 and	5 00
8. A fifty-five inch plate, with two pair of eighteen inch rubbers, and two negative conductors,	300 00	32. Pith-ball Electrometer and stand, 3 45 87 50 cents and....	1 00
9. Leyden Jars, one, two, three, and four quarts, \$1, 2, 3, and	4 00	33. Quadrant Electrometer and stand, 6 2 00 and	3 00
10. Leyden Jars, with ring and		34. Gold Leaf Electrometer, with evaporating cup and point, 6 2 00 and	3 00
		35. Improved Gold Leaf Electrometer, with evaporating cup, point, and condensing plates, ..	5 00

No.	Price.	No.	Price.
36. Atmospheric Electrometer, (Kinnersley's)	6 00	61. Luminous Bell Glass, Points, and Sliding Rod, \$3 00 and	5 00
37. Insulating Stool, sixteen inches square,	3 45 7 6 00	62. Balance Electrometer, large size,	6 00
38. Stand and Bell for pith-ball dancing, \$1 00 and	7 2 00	63. Electric S, and Point, 3 45 50 cents, 6 7 75 cents, and	1 00
39. Electric Bells, (3,) three inches diameter,	3 45 7 3 00	64. Compound Electric S, with Point and Stand, \$2 00 and	3 00
40. Set of nine Bells, mounted on a stand,	12 00	65. Electric S in vacuo, is arranged with articles before named,	
41. Dancing Image Plates, eleven inches diameter, and suspended to prime conductor,	3 45 2 00	66. Aurora Flasks, 1 00, 1 50, and	2 00
42. Dancing Image Plates, eleven inches, on adjusting stand, 6 7 3 00		67. Electric Bucket and Syphon, \$1 00 and	7 1 50
43. Dancing Image Plates, on insulating and adjusting stand,	6 00	68. Electric Swing and Image, \$1 00 and	4 50 7 2 00
44. Dancing Images; a pair, 3 4 30 cents and	5 50 7 50	69. Electric Seasons Machine, large size, mounted on Insulating Stand,	6 00
45. Pith-balls, from one to three fourths inch diameter, from 3 45 25 cents per dozen, in box, to	6 7 1 00	70. Electric Seasons Machine, smaller size, mounted on Insulating Stand,	6 7 3 00
Fancy colored Pith-balls, per doz., 30 cents to	1 50	71. Electric Seasons Machine, small size, with point and stand; stands in the centre hole of the prime conductor,	3 45 2 00
46. Electric Sportsmen and Birds, 3 45 75 cents and	7 1 00	72. Electrophorus, eleven inches, mounted on Insulating Stand, with cover, and handle, and elastic bag, and jet, 6 00 and	7 8 00
Electric Birds, per dozen, 50 cents and	75	73. Electric Spoons for igniting Ether, 3 45 75 cents,	6 7 1 25
47. Ratification, or Rat-killing Tube, \$3 00 and	4 00	74. Northern Light, or Aurora Tubes, from three to eight feet long, and mounted, 6 00, 8 00, 10 00 and	12 00
48. Wax Cylinders and Handles, six, nine, and twelve inches long, 3 45 6 7 1 00, 2 00, and	3 00	75. Magic Miser's Plate, plain and mounted, 3 75 cents, \$1 00, and	6 7 2 00
49. Glass Friction Cylinders, capped and handled, twelve, eighteen, and twenty-four inches long, 3 45 1 50, 6 7 2 00, 3 00		76. Electric Wheel and Inclined Plane, 2 00,	7 4 00
50. Sulphur Cone and Cup, 75 cents, and	1 00	77. Electric Swan and Basin, 75 cents and	1 00
51. Powder Bombs, 3 45 6 1 25 and 7 2 00		78. Revolving Glass Globe and Point, 50 cents and	1 00
52. Ivory Mortar and Ball, for decomposing oil, \$2 00 and ..	3 00	79. Helix for Magnetizing Steel, 2 and	3 00
53. Electric Cannons, mounted, \$4 00 and	6 00	80. Apparatus for Decomposing and Recomposing Water, ..	8 00
54. Thunder House and Fixtures, 3 45 5 00 and	7 6 00	Amalgam, per box, 25, 50, 75,	1 00
55. Gas Pistols, belonging to thunder house,	3 45 6 7 50		
56. Brass Electric Pistol; has fixtures to use with Galvanic Apparatus, \$2 00 and	3 00		
57. Hydrogen Gas Generator, or Platina Igniter, with Gas Detonating Jet, Platina Sponge and Jet, various sizes; two, four, and eight quarts, complete; 3 45 \$3 00, 6 7 4 00, \$8 00, and	14 00		
58. Long Haired Man, 3 45 50 cents, 6 7 75 cents, and	1 00		
59. Electric Float Wheel and Point, 3 45 6 1 00,	7 1 50		
60. The Abbe Nolet's Globe, 5 50 3 00 and	7 5 00		

CHEMICAL APPARATUS.

- Fig. 1. A Pair of Cylindrical copper Gasometers, 30 gallons capacity each bell, Compound Blow-pipe, with adjustable Holder,
- Pair copper Gasometers, 15 gallons each,
- Pair copper Gasometers, 7 gallons each,
- Pair tin Gasometers, 7 gallons each,
- Fig. 6. Malleable Iron Retort, and tube, pint,

No.	Price.	No.	Price.
6. Cast Iron Retort and Tube, quart,	73 00	36. Fig. 14. Air Thermometer, \$2 and.....	3 00
7. Flask and Screw Cap for Oxygen,.....	41 00	37. Fig. 16. Dropping Tube, 67 25 cents and.....	30
8. Lead Tube, with screws conducting gas,	45 67 1 50	38. Fig. 17. Dropping Tube, with Rubber Air Bag,	1 00
9. Fig. 7. Lead Retort and Tube for Hydrogen, quart,	5 00	39. Fig. 15. Spirit Boiler, used with the hand, 75 cents and ..	1 00
10. Fig. 10. Pair 13 inch Planished Reflectors, in cases which serve as stands, and iron ball and stand,	45 67 8 00	40. Fig. 18. Graduated oz. measure, 75 cents, 45 71, and ..	1 25
11. Fig. 12. Spirit Boiler, mounted to use with the Reflectors,	45 67 2 50	41. Fig. 26. Graduated measure, 10 cubic inches,	45 67 1 25
12. Fig. 70. Pair Cubes and Shields, for radiation and absorption of heat,	67 2 00	42. Fig. 23. Volta's Eudiometer, graduated,	1 50
13. Fig. 42. Pyrometer, with brass and iron expanding rod and two lamps, 45 63 00.....	73 00	43. Fig. 24. Hope's Eudiometer, graduated,	3 00
14. Fig. 46. Lamp Stand, with four bows and binding screws, 45 67 2 00		44. Fig. 25. Ure's Eudiometer, graduated,	2 50
15. Lamp Stand or Retort Holder, with shifting bows and two binders,	5 00	45. Fig. 27. Graduated Cubic inch tubes, 7 50 cents and	7 75
16. Conductometer, with iron, brass, copper, lead, tin, and glass conducting rods,	67 2 00	46. Test Tubes, 5674, 5675, 5676, 5678, 45 67 10, 45 67 12 inch, and 10 cts. to.....	45 67 30
17. Conductometer, of a cheaper form,	45 1 00	47. Fig. 29. Stand and doz. assorted test tubes,	2 00
18. Fig. 37. Apparatus for non-conducting power of liquids, \$3, and	4 00	48. Fig. 35. Bulb and Tube for condensation of mixed liquids,	7 75
19. Fig. 32. Platina Pendent Spoons and Rod,	67 1 00	49. Fig. 36. Two Bulbs and Tube for condensation,	1 00
20. Copper Pendent Spoons and Rod,	58 7 25	50. Fig. 30. Glass Flasks, with ring necks for corks, half pint, 45 67 25 cents; pint, 45 67 35 cents; quart	45 67 50
21. Fig. 33. Pendent Sockets for tapers, &c.,	50	51. Fig. 19. Glass Funnel, half pint, 45 67 25 cents; pint, 7 35 cts. and quarts.....	50
22. Fig. 34. Platina Forceps,	3 00	52. Fig. 19. Flat Bottom Flasks, gill 567 20 cents, half pint 567 30 cents, pint 567 40 cts., and quarts	567 55
23. Fig. 48. Fire Syringe, 7 inch plane, and box tinder,	45 67 1 50	53. Fig. 72. Globe Receivers, with ring neck, tube, and stopper, half pint, 67 35 cents; pint, 67 45 cents; and quart, ..	55
24. Fig. 43. Fire Syringe, with stop-cock tinder cavity,	8 00	54. Fig. 72. Tubulated Retorts, gill 45 67 25 cents, half pint 45 67 30 cents, pint 45 67 35 cents, and quart.....	567 50
25. Fig. 60. Set 3 wire gauze for cups with flame,	45 67 75	55. Graduated 60 Drop. Tube on foot,	75
26. Fig. 20. Plane Mouth Blow-pipe, 50 cents and.....	7 75	56. Cast Iron Mercury Cisterns, ..	1 00
27. Fig. 21. Blowpipe, with condensing bulb,	1 50	57. Fig. 8. Chemical Furnace, lined, rings or glass holders, tube holes, and sand bottles, 7 10, 15, and	20 00
28. Elevating Stands, with Table, Tripod, and Bughorn,	71 50	58. Iron Tube, adapted to Furnace, with screws, decomposing water, 75 cents and.....	71 00
29. Stands, with sliding screw clamps of wood for retort and tube holding, 3 and... ..	5 00	59. Glass Evaporating Dishes, 45 67 20 cents, 45 67 25 cents, 45 67 30 cents, and	67 35
30. Gas-bag, with socket and stop-cock, 6 gallon,	56 7 50	60. Porcelain Evaporating Dishes, nest of five, \$1 50 and	2 00
31. Hessian Crucibles, in nests of five,	67 20	61. Wedgwood Evaporating Dishes, nest of five, 71 50 and ..	2 50
32. Fig. 22. Chemical Thermometer, 650° jointed scale,	5 00	62. Glass Mortar and Pestles, 50 cents, 75 cents, and.....	71 00
33. Chemical Thermometer, 450°, plane scale,	56 7 2 50		
34. Fig. 11. Spirit Lamp, with ground cap,	45 67 1 00		
35. Aphlogistic Lamp, with platina coil, \$1 and	72 00		

No.	Price.
63. Porcelain Mortars and Pestles, ⁵ 67 1 25, 1 50, and....	2 00
64. Iron Mortar and Pestle, 1 25, 1 50, and.....	1 75
65. Platina Spatulas, ⁷ 1 50, 2, and	2 50
66. Steel Spatulas, 25 cents and..	50
67. Hydrogen Balloons, 12 inch, 1; 15 inch, ⁴ 56 2; 18 inch, ⁷ 3; 20 inch, 4; and 24 inch,	6 00
68. Woulded Rings for supporting retorts, flasks, evaporating dishes, &c., set of six, 1, and	1 50
69. Assortment of Test Rods, eight, 50 cents and	75
70. Glass Stirring Rods, six,..... ⁵ 67 75	
71. Fig. 43. Hydrogen Gas Generator, with gas jet, platina sponge, and long jet for detonating gas, one and two quarts capacity, 4 and.....	6 00
72. Fig. 44. Hydrogen Generator, in frame, with basement and fixtures, 8 quarts, 8; 12 quarts,.....	12 00
73. Glass Alembics, pint, ⁷ 1 75; quart,	2 50
74. Boglana Vials, per dozen,.... ⁶ 71 00	
75. Prince Rupert's Drops, per doz., ⁶ 7 50	
76. Long-necked Matresses, half pint, ⁴ 56 7 30 cents; pint, ⁴ 56 7 50	
77. Air Thermometer, tube and bulb, 36 inch,	50

APPARATUS FIGURED AND DESCRIBED IN PNEUMATICS, BUT USED IN CHEMISTRY.

Stop-cocks. See No. 16, Fig. 10.
 Screw Coupling, (5,) Nos. 18 to 22.
 Gallows Connecters and Tips, Nos. 23 and 24
 Hose for conducting Gas, No. 25, Fig. 19.
 Sliding Rods and Brass Plates, No. 26, Fig. 20.
 Transferring Pump, double acting, No. 14, Fig. 8.
 Bell Glasses, (40,) No. 29, Fig. 23, to No. 34, Fig. 28.
 Hydrogen Bubble Pipe, No. 58, Fig. 51.
 Strong Glass Condensing Chamber, with screw cap for showing the chemical effect produced on various substances subjected to atmospheric or gas pressure.
 Condensation Gauge for glass chamber, No. 55, Fig. 48.
 Bell Glass, cap, cock, and plate, for transferring air or gas, No. 100, Fig. 93.
 Evaporating Dishes, Fig. 98.
 Bell Glasses, with screw cap, and graduated to cubic inches, from 100 to 300, No. 94, Fig. 87.
 Gas Pistols. See Electricity.
 Scales, with 5 inch steel boxed beam, pair two and a half inch pans, set of

weights from half a grain to 6 drams, cased, included in apparatus, No. 91, Fig. 84.

Larger, and more highly finished Scales, for use in Laboratory, 18 inch beam, No. 91, Fig. 84.

STEAM.

Fig.	Price.
Steam Balls for exploding by candle, doz.,	⁴ 56 7 50
1. Steam Ball and Jet, brass... ⁴ 56 7 1 50	
2. Wollaston's Illustration of Low Pressure Steam Engine, copper globe boiler, cylinder, piston and rod, handle and safety-valve,... ⁴ 67 3 00	
3. Working Model of the Upright High Pressure Steam Engine complete,.....	35 00
4. Section Model of the High Pressure Steam Engine, 18 inch beam,.....	25 00
5. Marcet's Steam Globe, 5 inch diameter, lower half of iron, and not injured by mercury, a 36 inch condensation gauge and scale, a steam thermometer in brass case, a safety-valve adjustable from one to twelve atmospheres' pressure, a 7 wick copper lamp and stop-cock to start revolving jet, steam-gun, &c.,	⁶ 7 25 00
5. Marcet's Steam Globe, 6 inch diameter, with large fixtures as above, steam gun, jet for charging Leyden Jar with electricity from steam, insulating stand for all,....	50 00
6. Chamberlain's Steam Flask with screw cap, stop-cock, safety-valve, steam thermometer, inside, spirit lamp and stand for all,.....	7 8 00
NOTE. The Hose connects this steam flask with the air pump, to show the boiling point to vary with the pressure of the atmosphere.	
7. Working Model of the Horizontal High Pressure Steam Engine, complete in all its parts,	50 00

AN ASSORTMENT OF CHEMICAL SUBSTANCES,

In quantity and kind, adapted to use with the several sets of Apparatus for a Course of Experimental Lectures.

⁴5 10, ⁶15, ⁷20 to \$25 00

1. Sulphuric Acid,
2. Muriatic "
3. Nitric "
4. Sulphuric Ether,

5. Liquid Ammonia,
6. Alcohol,
7. Naphtha,
8. Nitrate of Barytes,
9. Muriate of "
10. Sodium,
11. Potassium,
12. Iodine,
13. Phosphorus,
14. Nitrate of Silver,
15. Nitrate of Ammonia,
16. Carbonate of "
17. Muriate of "
18. Oxalic Acid,
19. Pure Chlorate of Potassa,
20. Granulated Zinc,
21. Black Oxide of Manganese,
22. Prussiate of Potash,
23. Bicarbonate of Soda,
24. Fluor Spar,
25. Pulverized Steel,
26. " Iron,
27. " Brass,
28. " Copper,
29. " Tin,
30. " Lead,
31. " Zinc.

MAGNETIC, ELECTRO-MAGNETIC, GALVANIC, &c.

- Pair ten inch Bar Magnets and Armatures, in case,..... 63 00
- Single Bar Magnet and Keeper, 3 67 1 00
- Compound Magnet, twelve inch, ... 72 50
- U Magnet and Armature, 1 23 4 50 cents, and 3 51 00,..... 2 00
- U Magnet and Wheel Armature, . 67 3 00
- Double U Magnet and Armature, 3 00, and 5 00
- Wheel Armature for Double Magnet, 1 00
- Round Bar Armature, 3 46 25 cents, and 5 75 00
- Y Armature, 3 45 00 cents, and ... 6 67 75
- Star Armature, 3 46 75 cents, and 5 71 00
- Magnetic Needle, six inch, and Stand, 1 23 4 57 1 00, and.... 61 50
- Galvanic Battery, 25, 50, and 100; pair of cast zinc plates, four by six inches, in copper cells; are freed from acid solution by being raised one inch with crank windlass; are a very efficient decomposing and igniting battery, 7 25 00, 45 00, and 90 00
- Sulphate of Copper Battery, 8 by 9 1/2 inches, 68 00
- Sulphate of Copper Battery, 6 by 9 inches,..... 46 00
- Sulphate of Copper Battery, 4 by 5 1/2 inch,..... 12 37 3 00
- Powder Cup, brass,..... 3 46 67 50
- Voltaic Pistol, used in electrics, &c., 63 00 and 74 00

- Electro, or wound Iron Magnets, plain, 31 00; 46 2 00; and 75 80
- Electro-Magnets, mounted in frame, with Armature, 10 00 and..... 15 00
- Electro-Magnet, mounted in frame, with Armature and Lever to sustain 1000 pounds with small Battery,..... 25 00
- Electro Coil and Hemispheric Magnets, with ring-handles, 1 23 2 50, 4 56 73 50, and.... 5 00
- Magnetizing Helix, on Stand, and round bar,..... 3 46 67 3 00
- Pair of Coils to separate from the Magnet, 2 50 and..... 5 00
- Orsted's Galvanometer, 74 00
- Galvanometer, compass form, 3 46 67 3 00
- A seven inch Terrestrial Helix, used with needle, dipping, reversing poles, &c., 3 41 50 and 6 67 2 00
- Galvanometer, mounted on tripod stand, with adjusting screws, 6 00
- De la Rive's Ring or Floating Battery, 6 67 1 25
- Lever Beam Electro-Magnetic Engine, 10 00 and..... 15 00
- Horizontal Revolving Armature Engine, 10 00
- Revolving Magnet Bell Engine, 6 7 12 00
- Revolving Electro-Magnet, between poles of Steel U Magnet, 3 46 67 5 00 and..... 6 00
- Thermo-Electric Revolving Arch, between poles of Steel U Magnet, with Lamp,.... 4 56 75 00
- Separable Helices, or Apparatus for Analysis of Shocks, Decomposing Water, &c.,... 6 7 12 00
- Horizontal Electro-Magnetic Apparatus for Shocks, with Vibrating Armature or Break-piece, for medical use, &c., 3 45 00, 5 6 00, 6 7 00, and.. 8 00
- Shocking Handles, with binding screws, 3 46 67 1 50
- Set (4) Connecting Wires,..... 3 46 67 50
- Magneto-Electric Machine, with five eighteen inch Magnets, and a large compound revolving wire Armature, all substantially mounted, and sufficiently powerful to decompose water, 740 00 and 50 00
- Decomposing Cell, with tubes for collecting gases, mixed or separate, 6 73 00 and 5 00

NOTE. The above list of magnetic apparatus comprises only the more important instruments for the illustration of principles in this branch of science; and also affords as wide a range of prices as consists with liberal size, improved construction, and good mechanism.

GEOMETRY, &c.

Set of eight mahogany Solids, illustrating Cube Root, Plane and Solid Measure, &c. ¹ ² 1 25

Set of twelve Solids, viz., Cylinder; Oblique Cylinder; Prism, three sides; Prism, six sides; Cone; Pyramid; Frustrum of Cone; Frustrum of Pyramid; Sphere; Hemisphere; Oblate Spheroid; Prolate Spheroid,... ¹ ² 1 00

Set of ten Parallelpipeds, papered and numbered with reference to "Holbrook's Geometry,".....	1 21 00
Set of regular Solids, made of pasteboard, on cloth, cut and strung so as to be drawn into solid form,.....	1 21 00
Set of five Geometrical Transposing Frames.....	1 21 00
Numeral Frame,.....	1 21 25
A sheet of forty Geometrical Illustrations,.....	1 2 02

INDEX

TO THE SETS OF APPARATUS SELECTED FROM THE FOREGOING CATALOGUES.

To notice all the articles composing the various sets, it will be necessary to look with care through the entire Catalogue. The sets will, of course, be subject to modification by the purchaser.

Set No. 1, marked 1	against the price of each article,.....	\$ 50 00
" " 2, " 2	" " " "	100 00
" " 3, " 3	" " " "	250 00
" " 4, " 4	" " " "	400 00
" " 5, " 5	" " " "	500 00
" " 6, " 6	" " " "	700 00
" " 7, " 7	" " " "	1000 00

**BOOKS, EXPERIMENTAL, ILLUSTRATIVE, AND EXPLANATORY,
WITH PRICE CATALOGUES.**

"Chamberlain's Pneumatic Experiments," with one hundred and twenty wood cut illustrations and two hundred experiments, with notes and explanations,.....	75
"Chamberlain's Electric Illustrations and Experiments," seventy illustrations, with notes, &c.,.....	50
"Chamberlain's Illustrated Price Catalogue of Mechanics, Optics, Astronomical, Pneumatic, Hydrostatic, Electric, Chemical, Galvanic, Magnetic, Electro-Magnetic, &c.,.....	75
"Francis's Chemical Experiments," with one hundred and fifty wood cut illustrations and two thousand one hundred and forty-nine experiments,	2 00
"Davis's Manual of Magnetism," with some two hundred cut illustrations and experiments,.....	1 25

NOTE. All of the Instruments are illustrated by Wood Cuts, and such descriptions and dimensions given as will enable the purchaser to judge correctly of the general character of the Instruments.

TERMS, CASH.

NO DISCOUNT TO AGENTS.

Prices uniform and definite; and such as will afford only a manufacturer's profit. Boxes, packing, and shipping, two and a half per cent. on the amount of the bill, if over one hundred dollars.

Insured against breakage by transportation for two and a half per cent.

Insured against the dangers of the seas, from one to two and a half per cent.

ILLUSTRATIONS
OF
PHILOSOPHICAL INSTRUMENTS

MANUFACTURED AND SOLD BY
N. B. CHAMBERLAIN,
BOSTON, MASS.

Pneumatics.—CHAMBERLAIN'S AMERICAN AIR PUMP.
Fig. 1.—Nos. 1, 2, 3, 4.

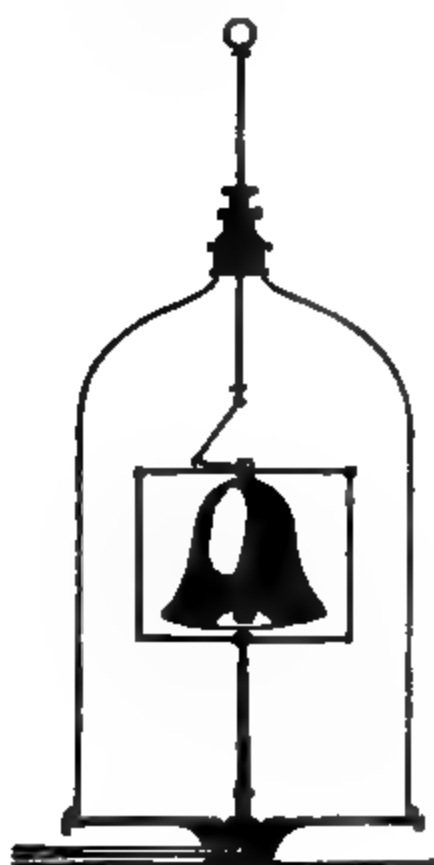
AIR PUMP.
Fig. 2.—Nos. 5, 6.

AIR PUMP.
Fig. 4.—No. 12.

THREE INCH STOP-COCK
Fig. 10.

VANE AND MILL IN VACUO
Fig. 70.

BELL IN VACUO.
Fig. 82.



Hydrostatics. — LIFTING AND FORCING PUMPS.
Fig. 8.

Pneumatics. — IMPROVED GLASS
CONDENSING CHAMBER.
Fig. 8A.

Pneumatics. — COPPER CONDENSING
CHAMBER AND FIXTURES.



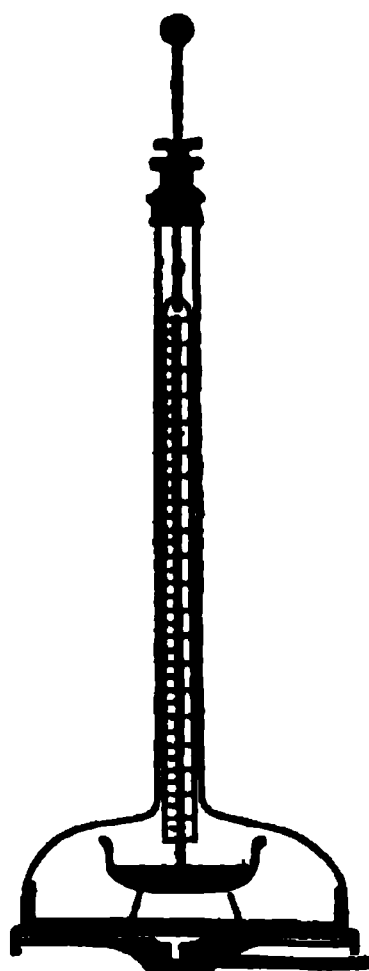
CHAMBERLAIN'S BAROMETER
AND EXPANSION APPARATUS.
Fig. 78.



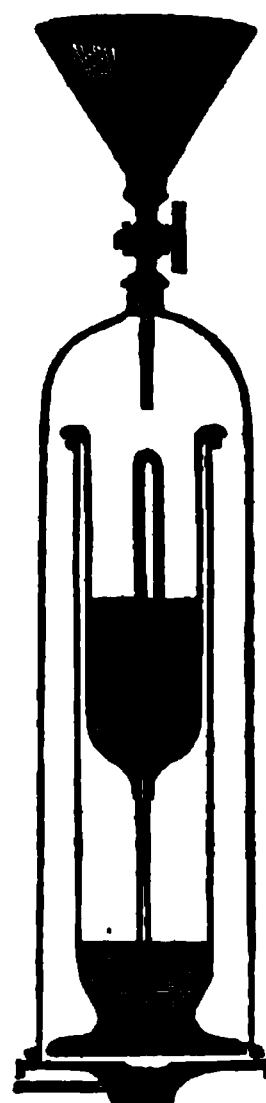
TALL CONICAL GUINEA
AND FEATHER GLASS.
Fig. 71.



FREEZING APPARATUS
WITH THERMOMETER.
Fig. 96.



SYPHON IN VACUO.
Fig. 88.



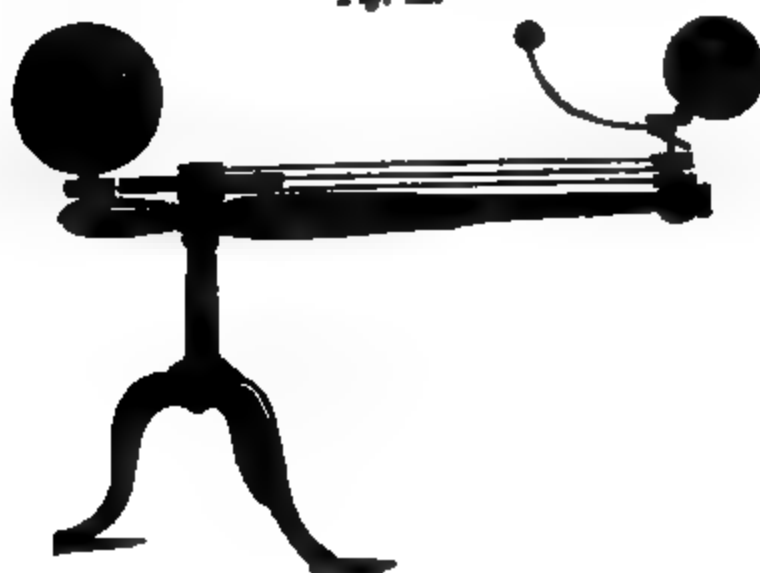
ONE AND A HALF INCH
STOP-COCK.
Fig. 11.

WEIGHT AND BUOYANCY
OF AIR.
Fig. 52.

GUINEA AND FEATHER TUBE,
OR NORTHERN LIGHT TUBE.
Fig. 72

Hydrostatics.—HYDROSTATIC
BELLOWS.
Fig. 7.

SEASONS MACHINE — Brass Mounted.
Fig. 21.



IMPROVED HIGH MOUNTED GLOBE.
Fig. 22.

MECHANICAL POWERS.

Fig. 2.—Nos. 10, 11.

REFLECTING TELESCOPE.
Fig. 10.—No. 36.

Electric. — FIFTY-FIVE INCH PLATE ELECTRIC MACHINE.
FIG. 4

**SECTION MODEL OF THE HIGH PRESSURE STEAM ENGINE — EIGHTH
AND TWENTY-FOUR INCH BEAM.**

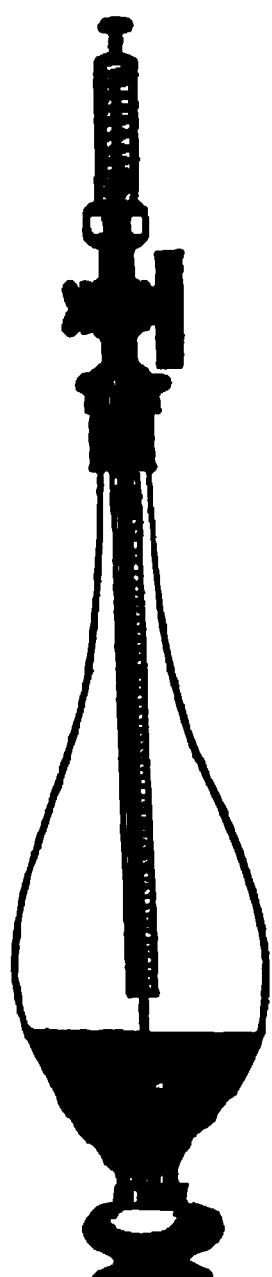
Fig. 5.

PYROMETER, WITH LAMPS AND BRASS AND IRON EXPANDING RODS

Fig. 6.

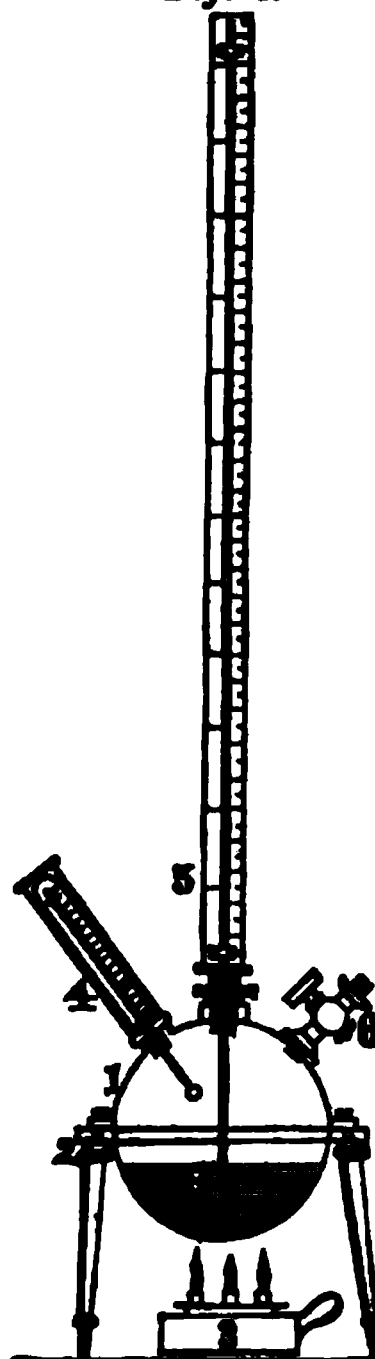
CHAMBERLAIN'S STEAM FLASK, WITH
CAP, COCK, SAFETY-VALVE, THER-
MOMETER, STAND, AND LAMP.

Fig. 2.



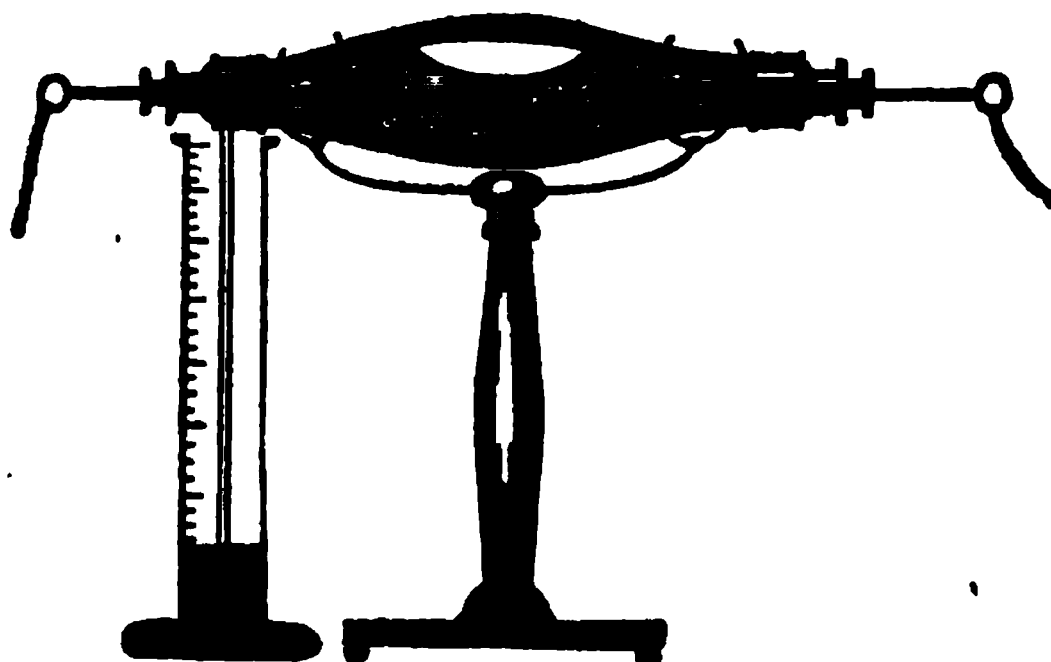
MARSET'S STEAM GLOBE, WITH
TALL PRESSURE-GAUGE, STEAM
THERMOMETER, STOP-COCK,
SAFETY-VALVE, AND
COPPER LAMP.

Fig. 3.



DECOMPOSING AND RECOMPOSING BY GALVANISM OR ELECTRICITY.

Fig. 4.

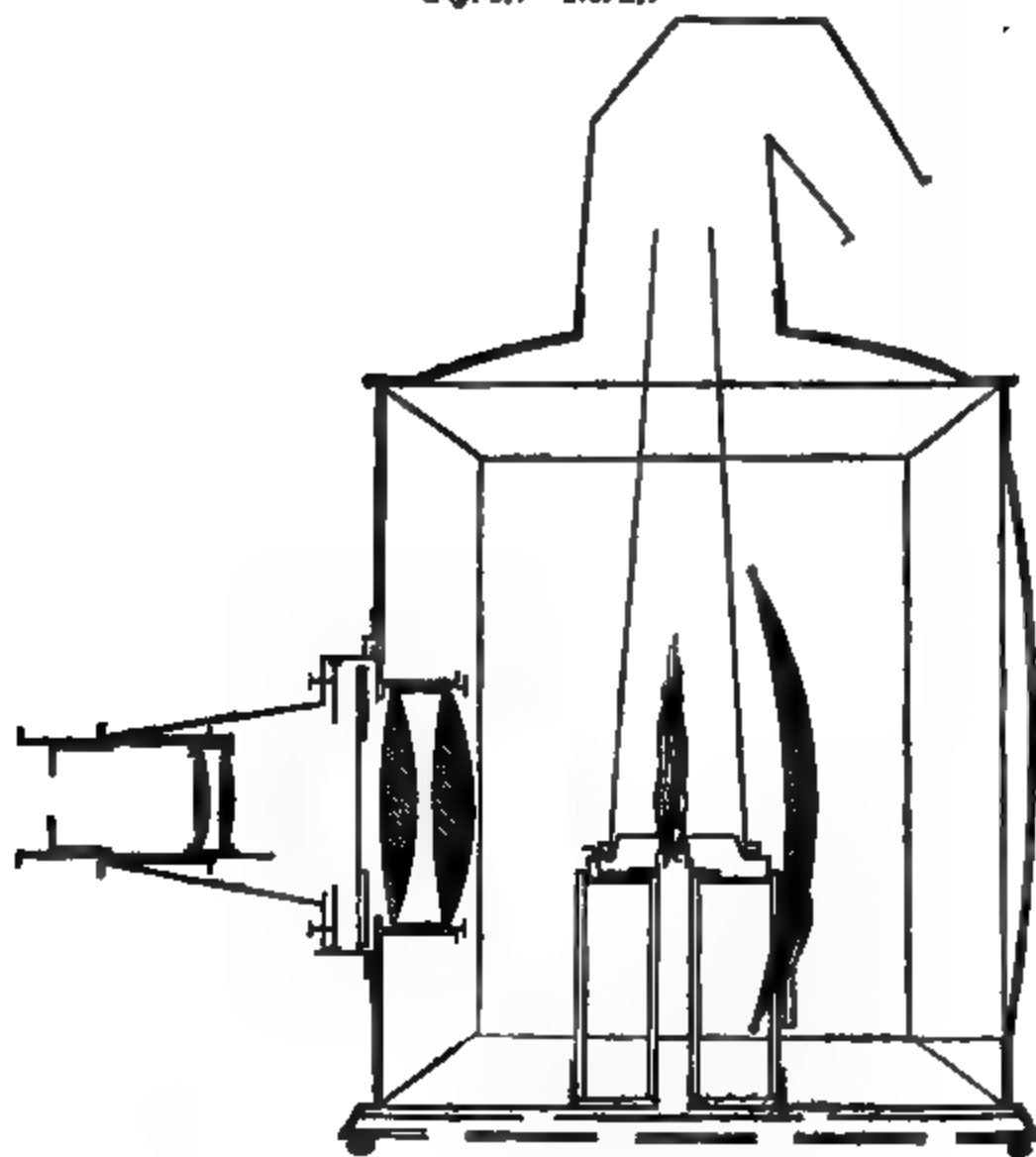


Electrics.—EIGHTEEN INCH PLATE ELECTRIC MACHINE.

Fig. 1.

Optics.—IMPROVED MAGIC LANTERN.

Fig. 17.—No. 27.

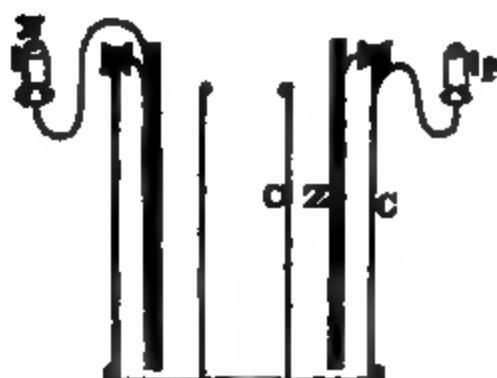


GALVANIC BATTERY.

Fig. 7.

CYLINDRICAL BATTERY.

Fig. 8.



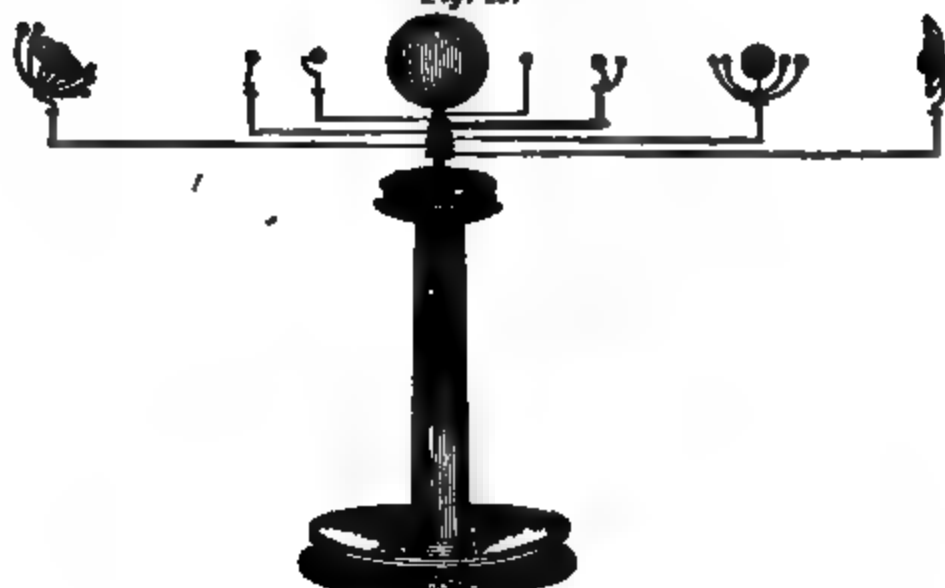
MAGNETO-ELECTRIC MACHINE.

Fig. 9.

ORRERY — Motion by Crank.
Fig. 18.



ORRERY — Motion by Winding Spring
Fig. 19.



BRASS-MOUNTED SPRING ORRERY.
Fig. 20.



APPARATUS FOR ANALYSIS OF SHOCKS OR SEPARABLE HELICES
Fig. 10

Electricity.—GAS GENERATOR, WITH JET AND
PLATINA SPONGE, DETONATING JET, &c.
Fig. 49.



Galvanism.—HELIIX AND
HEMISPHERIC MAGNETS.

Fig. 11.



SCHOOL ARCHITECTURE
CHEMICALS, STEAM, &c.

PHILOSOPHICAL APPARATUS,

SELECTED FROM

CHAMBERLAIN'S ILLUSTRATED AND DESCRIPTIVE CATALOGUES,

AND ARRANGED IN SETS CORRESPONDING TO THE
SUMS ANNEXED.

[It will be seen that the highest cost and largest sized instruments have not been incorporated into sets, as such instruments are generally required for institutions having more or less good apparatus of a small class, that is made more valuable by being used in connection with an efficient Air Pump or Electric Machine.]

SET OF PHILOSOPHICAL APPARATUS.

No. 1, marked ¹ in Catalogue.

Cohesive Attraction Plates,.....	1 00	Sheet of Geometrical Illustrations,	20
Cohesive Attraction Lead Hemispheres,	1 00	Numeral Frame,.....	1 00
Set of six Capillary Attraction Tubes,.....	1 50	Prism,.....	2 00
Set of six Collision Balls, in frame,	3 00	Set of six Lenses,.....	6 00
Set of Centre of Gravity, Centre of Motion, Centre of Magnitude, Common Centre, &c.,.....	7 00	Terrestrial Globe,	2 00
Set of eight Cube Root Solids,...	1 25	Seasons Machine,.....	7 00
Set of twelve Geometrical Solids,.	1 00	Orrery,	7 00
Set of ten Parallelopipeds,.....	1 00	Cylindrical Electro-Galvanic Battery,.....	3 00
Set of five Regular Solids,.....	1 00	Helix and pair of Hemispheric Magnets,	2 50
Set of five Geometrical Transposing Frames,	1 00	Magnetic Needle and Stand,.....	75
			<u>\$50 00</u>

SET OF PHILOSOPHICAL APPARATUS.

No. 2, marked ² in Catalogue.

Cohesive Attraction Plates,.....	1 00	Cube Root Solids,.....	1 25
Lead Hemispheres, for Cohesive Attraction,	1 00	Twelve turned Solids,.....	1 00
Capillary Tubes,	1 50	Ten Parallelopipeds,.....	1 00
Collision Balls and Frame,	4 00	Five regular Solids,.....	1 00
Centre of Gravity Apparatus,....	7 00	Five Transposing Frames,.....	1 00
Mechanical Powers,.....	35 00	Sheet Geometrical Diagrams,....	20
		Numeral Frame,.....	1 00
Set of six Lenses,	6 00	Cylinder Electro-Galvanic Battery,	3 00
Prism,.....	2 00	Helix and Armatures,.....	2 50
Compound Microscope,.....	10 00	U Magnet and Armature,	50
Orrery,	10 00	Magnetic Needle and Stand,.....	75
Seasons Machine,.....	7 00		<u>\$100 00</u>
Terrestrial Globe,.....	5 00		

SET OF PHILOSOPHICAL APPARATUS.

No. 3, marked 3 in Catalogue.

•Air Pump,.....	25 00	Directing Rod,.....	2 00
•Bell Glass, Screw Capped,.....	3 50	Spiral Tube,.....	2 00
•Freezing Apparatus,.....	4 00	Bells,.....	3 00
•Expansion,	75	S. and Point,.....	80
Straight Glass Jar,.....	75	Pithball Electrometer,.....	50
•Hand Glass,.....	75	Images and Plates,.....	2 00
•Tall Bell Glass and Jar,.....	3 00	Insulating Stool,	6 00
•Mercury Tunnel,.....	75	Box Pithballs,.....	25
•Glass Pan for do.,.....	25	Sportsman and Birds,.....	75
Hemispherical Cups,.....	5 00	Powder Bomb,.....	1 25
Upward Pressure Apparatus,.....	6 00	Thunder House and Fixtures,....	5 00
Set Screw Couplers,.....	2 50	Hydrogen Generator,.....	3 00
Bell for Vacuo,.....	1 25	Long-Haired Man,	80
•Sliding Rod,.....	1 25	Wheel and Point,	1 00
•Sheet Rubber Bag,.....	1 25	Seasons Machine,	2 50
•Artificial Fountain,.....	4 00	Ether Spoon,.....	75
•Guinea and Feather Tube,.....	6 00	Wax Friction Cylinder,.....	1 00
•Barometer Apparatus,.....	3 00	Glass Friction Cylinder,.....	1 00
•Weighing and Buoyancy of Air,.	5 00	Box Amalgam,.....	25
Syphon Vacuum Gauge,.....	2 50		
Inertia Wheel,.....	1 00	Cylindrical Electro Battery,.....	3 00
•Philosophical Water Hammer, ..	3 00	Electro Magnet,.....	1 00
•Condenser,	5 00	Electro Coil and Armatures,.....	2 50
•Condensing Chamber and Cock,.	3 50	Powder Cup,.....	50
Air Gun Barrel,	1 00	Pair of Magnetic Needles and	
•Revolving Jet,.....	1 25	Stands,	2 00
•Exploding Cup, Cap and Cock,..	2 00	Bar Magnet,.....	1 00
•Hose and Jet,.....	1 00	U Magnet and Armature,.....	1 00
•Straight Brass Jet,.....	50	Terrestrial Helix,.....	1 50
Stopcock Collars,.....	25	Revolving Electro Magnet,.....	5 00
		Magnetizing Helix,.....	2 50
Pair Water Pumps,.....	12 00	Compound Helices, with vibrating	
		Armature for Shocks,.....	5 00
Mechanical Powers,.....	35 00	Pair Handles, for Shocks,.....	1 50
Centre of Gravity Apparatus,....	7 00	Set of Connecting Wires,.....	50
		Galvanometer,	3 00
Electric Machine, 18 inch Plate,.	25 00		
Two quart Leyden Jar,.....	2 00	Pneumatics and Hydraulics,..	\$107 00
Diamond Jar,.....	3 00	Electrics,	71 00
Movable Coatings Jar,.....	3 00	Mechanics, &c.,.....	42 00
Electrometer Jar,	1 50	Magnetics, &c.,.....	30 00
Discharger,	2 50		
			\$250 00

SET OF PHILOSOPHICAL APPARATUS.

No. 4, marked 4 in Catalogue.

Collision Balls,.....	8 00	Tall Bell Glass and Jar,	3 00
Mechanical Powers,.....	35 00	Freezing Apparatus,.....	4 00
		Expansion Apparatus,.....	75
Set of Eye Models,.....	12 00	Hand Glass,.....	75
Prism,.....	1 00	Mercury Tunnel,.....	1 00
Compound Microscope,.....	10 00	Glass Pan, for Mercury,.....	25
		Straight Jar, for Bell Glass,.....	75
Orrery,	10 00	Hemispherical Cups,	5 00
Seasons Machine,.....	7 00	Upward Pressure Apparatus.....	6 00
Pair ten inch Globes,.....	20 00	Dozen Bursting Squares,	1 50
		Cap Valve for do.,.....	25
Double Barrel Air Pump,	35 00	Wire Guard for do.,.....	75
Eight inch brass capped Bell		Set of Screw Couplers,	2 50
Glass,	3 50	Bell for Vacuo,	1 25

Sliding Rod,	1 50	Electric Swing and Image,	2 00
Sheet Rubber Bag,	1 25	Gasometers and Fixtures,	25 00
Artificial Fountain,	4 00	Flask, screw-capped for Oxygen, ..	1 00
Float Wheel,	1 00	Lead Conducting Tube,	1 50
Bacchus Illustration,	1 50	Reflectors and Iron Ball,	6 00
Guinea and Feather Tube,	6 00	Spirit Boiler for do.,	2 50
Water Hammer,	3 00	Pyrometer, Rods, and Lamps, ...	3 00
Barometer Apparatus,	3 00	Conductometer and Rods,	1 00
Weight and Buoyancy of Air,	6 00	Fire Syringe and Tinder,	1 50
Vacuum Gauge,	2 50	Set of Wire Gauze,	50
Condensing Pump,	5 00	Lamp Stand,	2 00
Condensing Chamber and Cock, ...	3 50	Spirit Lamp,	1 00
Air Gun Barrel,	1 00	Grad. Oz. Measure,	1 00
Revolving Jet,	1 25	Ten cubic inch do.,	1 00
Jet Paradox Tunnel,	1 50	Test Tubes, six,	75
Water Pan and Tube,	75	Flasks, three,	75
Plate Paradox and Disks,	1 00	Funnel,	20
Pipe Paradox and Balls,	1 00	Retorts, tubulated, three,	80
Water Hose, ...	1 00	Evaporating Dishes, three,	60
Brass Jet,	50	Hydrogen Balloon,	2 00
Exploding Cup and Cock,	2 00	Pair long-necked Matrasses,	60
Stopcock Collars,	25	Dozen Candle Bombs,	50
Pair Water Pumps and Fixtures, ..	12 00	Dozen Prince Rupert's Drops,	50
Electric Machine, 18 inch Plate, ..	25 00	Steam Globe and Jet,	1 50
Battery of four quart Jars,	8 00	Wollaston's Steam Apparatus, ...	3 00
Double Jar,	3 50	Chemical Substances,	10 00
Diamond Jar,	3 00	Electro Cylinder Battery,	6 00
Movable Coatings,	3 00	U Magnet and Armature,	50
Electrometer Jar,	1 50	Electro Magnet,	1 00
Discharger,	2 50	Bar Armature,	25
Directing Rod,	2 00	Y Armature,	75
Spiral Tube,	2 50	Star Armature,	75
Bells,	3 00	Magnetic Needle and Stand,	1 00
Pithball Electrometer,	50	Powder Cup,	50
S. and Point,	50	Coil and Hem. Armatures,	2 50
Pair Plates and Images,	2 50	Magnetizing Helix,	3 00
Box Pithballs,	25	Terrestrial Helix,	1 50
Insulating Stool,	6 00	Revolving Magnet,	5 00
Sportsman and Birds,	75	Vibrating Shocker,	6 00
Powder Bomb,	1 25	Shocking Handles,	1 50
Thunder House and Fixtures, ...	6 00	Set of Connecting Wires,	50
Hydrogen Generator,	3 00		
Long-Haired Man,	50	Pneumatics,	124 75
Float Wheel and Point,	1 00	Electrics,	80 00
Seasons Machine,	2 50	Chemicals,	68 20
Ether Spoon,	75	Magnetics, &c.,	29 75
Wax Friction Cylinder,	1 00	Mechanics, &c.,	98 00
Glass Friction Cylinder,	1 50		
			\$400 00

SET OF PHILOSOPHICAL APPARATUS.

No. 5, marked * in Catalogue.

Collision Balls,	4 00	Straight Jar for do.,	1 00
Mechanical Powers,	35 00	Freezing Apparatus,	4 00
Centre of Gravity,	7 00	Tall Bell Glass and Jar,	3 00
Set of Eye Models,	12 00	Expansion Apparatus,	75
Prism,	1 00	Swelled Hand Glass,	1 00
Microscope,	12 00	Hemispherical Cups,	5 00
Orrery,	10 00	Upward Pressure Apparatus,	6 00
Seasons,	7 00	Dozen Bursting Squares,	1 50
Pair of Globes,	30 00	Cap Valve for do.,	25
Air Pump,	40 00	Wire Guard for do.,	75
Open Swelled Bell Glass,	4 50	Set of Screw Couplers,	2 50
Brass screw-capped Bell,	3 50	Bell for Vacuo,	1 25
		Sliding Rod for do.,	1 25
		Sheet Rubber Bag, &c.,	1 25

Artificial Fountain, &c.,	4 00	Conducting Gas Tube,.....	1 80
Mercury Tunnel,	1 00	Reflectors on Stands,.....	5 00
Glass Pan for Mercury,	30	Spirit Boiler,.....	2 80
Guinea and Feather Tube,	6 00	Barometer and Lamps,	3 00
Barometer Apparatus,	3 00	Lamp Stand,.....	2 00
Weight and Buoyancy of Air,....	6 00	Conductometer.....	1 00
Syphon Vacuum Gauge,.....	2 50	Pendent Spoon,	25
Float Wheel,	1 00	Fire Syringe and Tinder,.....	1 50
Water Hammer,	3 00	Set of Wire Gauze,.....	50
Condensing Chamber and Cock,..	3 50	Gas Bag and Cock,.....	5 00
Condenser,.....	5 00	Chemical Thermometer,	2 80
Air Gun Barrel,	1 00	Spirit Lamp,.....	1 00
Revolving Jet,	1 25	Graduated Measure,	1 00
Plate Paradox and Disks,.....	1 00	Test Tubes, six,.....	75
Pipe Paradox and Balls,.....	1 00	Flasks, three,	1 00
Hose and Water Jet,.....	1 00	Funnel,	20
Brass Jet,	50	Flasks, flat bottom, three,.....	75
Leathers for Stopcocks,.....	50	Tub. Retorts, six,.....	2 00
Exploding Cup, Cap, and Cock,..	2 00	Evaporating Dishes, three,.....	75
Jet Paradox and Balls,	1 50	Two Wedgwood do.,.....	40
Water Pan and Tube,	75	Mortar and Pestle,.....	1 00
Pair of Water Pumps,	12 00	Hydrogen Balloon,.....	2 00
Electric Machine, 24 inch Plate,..	50 00	Stirring Rods,	25
Battery,	8 00	Matrasses, two,.....	60
Double Jar,	3 50	Candle Bombs, dozen,.....	50
Diamond Jar,	3 00	Steam Globe, brass, with Jet,....	1 50
Movable Coatings,	3 00	Chemical Substances,.....	10 00
Electrometer Jar,.....	1 50	Electro Battery,	8 00
Directing Rod,.....	2 00	Bar Magnet,.....	1 00
Discharger,	2 50	U Magnet and Armature,	1 00
Spiral Tube,.....	2 50	Electro Magnet,.....	2 00
Pithball Electrometer,	50	Bar Armature,	25
Insulating Stool,	6 00	Y Armature,	75
Set of Bells,	3 00	Star Armature,.....	75
Dancing Image Plates,	2 00	Pair of Needles,.....	2 00
Pair of Dancing Images,.....	50	Powder Cup,.....	50
Box of Pithballs,.....	50	Coil and Hem. Armatures,.....	2 50
Sportsman and Birds,.....	75	Magnetizing Helix,.....	3 00
Powder Bomb,.....	1 25	Galvanometer,	3 00
Abbe Nolet's Globe,.....	3 00	Terrestrial Helix,.....	1 50
Thunder House and Fixtures,....	5 00	Revolving Electro Magnet,.....	5 00
Hydrogen Generator,.....	3 00	Analysis of Shocks Apparatus,..	12 00
Long-Haired Man,	50	Shocking Handles,.....	1 50
Float Wheel and Point,.....	1 00	Set of Connecting Wires,.....	50
S. and Point,.....	50	Thermo-Electric Arch,	5 00
Seasons Machine,	2 50	Decomposing Cell,	3 00
Ether Spoon,.....	75	Pneumatics,	135 20
Miser's Plate,	1 50	Electrics,	110 00
Electric Swing and Image,.....	1 00	Chemicals,.....	85 55
Box of Amalgam,.....	25	Mechanics, &c.,	118 00
Gasometers and Fixtures,.....	35 00	Electro Magnets,.....	51 25
Retort for Oxygen,.....	2 00		\$500 10

SET OF PHILOSOPHICAL APPARATUS.

No. 6, marked * in Catalogue.

Collision Balls,.....	4 00	Globes,	30 00
Centre of Gravity Apparatus,....	7 00	Magic Lantern,.....	25 00
Mechanical Powers,	35 00	Astronomical Slides,	20 00
Lenses,	6 00	Air Pump,.....	75 00
Prism,.....	2 00	Open Swelled Bell Glass,.....	4 50
Microscope,	12 00	Brass capped Bell Glass, 8 inch,..	3 50
Orrery,	25 00	Straight Jar for do.,	1 00
Seasons Machine,.....	7 00	Tall Bell Glass and Jar.....	3 00

Freezing Apparatus,	5 00	Box of Amalgam,	80
Expansion do.,	1 00	Pair of Gasometers and Fixtures, ..	35 00
Swelled Hand Glass,	1 00	Oxygen Retort,	2 00
Hemispherical Cups,	7 00	Lead Conducting Tube,	1 50
Upward Pressure Apparatus,	9 00	Pair of Reflectors,	8 00
Dozen Bursting Squares,	1 50	Spirit Boiler,	2 50
Cap Valve for do.,	25	Radiating Cubes,	2 00
Wire Guard for do.,	75	Pyrometer,	3 00
Set of Screw Couplers,	2 50	Lamp Stand,	2 00
Bell for Vacuo,	1 25	Conductometer,	2 00
Sliding Rod for do., &c.,	1 50	Pendent Spoons,	1 25
Sheet Rubber Bag, &c.,	2 00	Fire Syringe and Tinder,	1 50
Artificial Fountain,	4 00	Set of Wire Gauge,	75
Bacchus Illustration,	1 50	Large Gas Bag and Cock,	5 00
Mercury Tunnel,	1 00	Crucibles,	20
Guinea and Feather Tube,	6 00	Chemical Thermometer,	2 50
Water Hammer, Cap, and Cock, .	3 00	Spirit Lamp,	1 00
Barometer Apparatus,	7 00	Dropping Tube,	20
Weight and Buoyancy of Air,	7 00	Graduated Measure, Oz.,	1 00
Copper Condensing Chamber and Cock,	3 50	Measure, ten cubic inches,	1 25
Condensing Pump,	5 00	Six Test Tubes,	75
Air Gun Barrel,	1 00	Flasks, six,	2 20
Jet Paradox and Balls,	1 50	Tunnel, Glass,	25
Cock and Int. Ext. Jets for do., ..	1 50	Flat Flasks, three,	1 25
Revolving Jet,	1 25	Globe Receivers, two,	80
Plate Paradox and Disks,	1 00	Tubular Retorts, six,	2 50
Pipe Paradox and Balls,	1 00	Glass Evaporating Dishes, three, .	60
Water Hose and Jet,	1 00	Wedgwood Mortar and Pestle, ...	1 00
Brass Jet,	50	Hydrogen Balloon,	2 00
Water Pan and Tube,	75	Stirring Rods, three,	25
Bladder, Cup, Cap, and Cock,	2 00	Bologna Vials, six,	50
Stopcock Leathers,	50	Rupert's Drops, dozen,	50
		Matrasses, two,	70
Pair of Water Pumps,	12 00	Candle Bombs, dozen,	50
Hydrostatic Bellows,	8 00	Steam Globe and Jet,	1 50
		Wollaston's Steam Apparatus, ...	3 00
Electric Machine, 24 inch Plate, ..	50 00	Marset's Steam Globe,	25 00
Battery of four Jars,	10 00	Chemical Substances,	15 00
Atmospheric Jar,	3 00		
Diamond Jar,	3 00	Sulphate Copper Battery,	8 00
Movable Coatings,	3 00	Bar Magnet,	1 00
Electrometer Jar,	1 50	U Magnet and Wheel,	3 00
Directing Rod,	2 00	Bar Armature,	25
Jointed Discharger,	3 50	Y Armature,	75
Universal Discharger,	6 00	Star Armature,	75
Spiral Tube,	2 50	Magnetic Needle and Stand,	1 00
Pithball Electrometer,	75	Powder Cup,	50
Insulating Stool,	6 00	Voltaic Pistol,	3 00
Set of Bells,	3 00	Electro Magnet,	5 00
Dancing Image Plates,	3 00	Coil and Hem. Magnets,	3 50
Pair of Dancing Images,	50	Magnetizing Helix,	3 00
Box of Pithballs,	50	Galvanometer,	3 00
Sportsman and Birds,	75	Terrestrial Helix,	2 00
Powder Bomb,	1 25	De la Rive's Ring,	1 25
Wax Friction Cylinder,	1 50	Bell Engine,	12 00
Glass Friction Cylinder,	1 50	Revolving Electro Magnet,	5 00
Quadrant Electrometer,	2 00	Thermo-Electric Arch,	5 00
Gold Leaf Electrometer,	2 00	Analysis of Shocks Apparatus, ...	12 00
Thunder House and Fixtures,	5 00	Shocking Handles,	1 50
Hydrogen Generator,	4 00	Connecting Wires,	50
Long-Haired Man,	50	Decomposing Cell,	3 00
Float Wheel and Point,	1 00		
S and Point,	75		
Abbe Nolet's Globe,	3 00	Pneumatics, &c.,	173 00
Seasons Machine,	3 50	Electrics,	122 00
Igniting Spoon,	75	Chemicals,	130 95
Miser's Plate,	2 00	Magnetics, &c.,	75 00
Bucket and Syphon,	1 00		
Electric Swing and Image,	2 00		
			<u>\$700 00</u>

SET OF PHILOSOPHICAL APPARATUS.

No. 7, marked 7 in Catalogue.

Set of Collision Balls,.....	6 00	Stopcock Leathers,.....	50
Centre of Gravity Apparatus,....	7 00	Pair of Water Pumps,.....	12 00
Whirling Machine, &c.,.....	8 00	Hydrostatic Bellows,.....	8 00
Mechanical Powers,.....	85 00	Hydrostatic Press,.....	20 00
Set of Lenses,.....	6 00	Thirty inch Plate Machine,.....	85 00
Prism,.....	2 00	Battery, six Jars,.....	14 00
Compound Microscope,.....	18 00	Double Jar,.....	4 00
Orrery,.....	25 00	Diamond Jar,.....	3 00
Pair 13 inch high-mounted Globes, 40 00		Movable Coatings,.....	3 00
Magic Lantern,.....	25 00	Atmospheric Jar,.....	3 00
Astronomical Illustrations,.....	20 00	Electrometer Jar,.....	2 50
Seasons Machine,.....	7 00	Sliding Directing Rod,.....	3 00
Air Pump,.....	85 00	Jointed Discharger,.....	3 50
Bell Glass, open, swelled,.....	6 00	Universal Discharger,.....	7 00
Bell Glass, brass capped,.....	3 50	Spiral Spotted Tube,.....	3 00
Tall Bell Glass and Jar,.....	3 00	Spotted Star,.....	4 00
Freezing Apparatus, 12 inch,....	6 00	Revolving Bell Glass,.....	2 00
Expansion Apparatus,.....	2 00	Pithball Electrometer,.....	1 00
Hand Glass, swelled,.....	1 00	Quadrant do.,.....	3 00
Bladder Cup, Cap, and Cock,....	2 00	Gold Leaf do.,.....	3 00
Hemispherical Cups,.....	7 00	Insulating Stool,.....	6 00
Upward Pressure Apparatus,.....	9 00	Stand, Bell, and Dancing Balls,..	2 00
Dozen Bursting Squares,.....	1 75	Set of Bells, three,.....	3 00
Cap Valve for do.,.....	25	Dancing Image Plates,.....	3 00
Wire Guard for do.,.....	1 00	Pair of Dancing Images,.....	50
Set of Screw Couplers, five,.....	2 50	Assortment of Pithballs,.....	1 00
Bell for Vacuo,.....	1 25	Electric Sportsman and Birds,...	1 00
Sliding Rod for do.,.....	2 00	Wax Friction Cylinder,.....	2 00
Vane Mill for Vacuo,.....	7 00	Glass Friction Cylinder,.....	2 00
Sheet Rubber Bag, &c.,.....	2 00	Powder Bomb,.....	2 00
Artificial Fountain and Jets,.....	4 00	Thunder House and Fixtures,....	6 00
Tall Bolthead and Cap,.....	1 50	Brass Cannon, &c.	4 00
Bacchus Illustration,.....	3 00	Hydrogen Generator,.....	4 00
Mercury Tunnel,.....	1 00	Long-Haired Man,.....	75
Guinea and Feather Tube,.....	7 00	Float Wheel and Point,.....	1 50
Water Hammer, Cap, and Cock,..	3 00	Abbe Nolet's Globe,.....	5 00
Chamberlain's Barometer,.....	7 00	Electric S. and Point,.....	1 00
Vacuum Gauge,.....	3 50	Electric Bucket and Syphon,....	1 50
Weighing Air Apparatus,.....	15 00	Electric Swing and Image,.....	2 00
Buoyancy of Air Apparatus,.....	6 00	Electric Seasons Machine,.....	3 50
Double Transferrer,.....	10 00	Electrophorus and Fixtures,....	8 00
Straight Jar,.....	1 00	Electric Igniting Spoon,.....	1 00
Pear Gauge,.....	3 00	Miser's Plate,.....	2 00
Syphon in Vacuo,.....	4 00	Inclined Plane and Wheel,.....	4 00
Glass Condensing Chamber,.....	10 00	Pair of Gasometers,.....	60 00
Double Acting Condenser,.....	8 00	Iron Retort for Oxygen,.....	3 00
Air Gun Barrel,.....	1 25	Lead Conducting Tube,.....	1 50
Revolving Jet,.....	1 25	Pair of 13 inch Reflectors, in case,	8 50
Stopcock, Int. and Ext. Jets,....	2 00	Spirit Boiler for do.,.....	2 50
Jet Paradox Tunnel, &c.,.....	1 50	Pair of Radiating Cubes,.....	2 00
Water Pan and Tube,.....	75	Pyrometer, Rods, and Lamps,....	4 00
Plate Paradox and Disks,.....	1 25	Two Lamp Stands,.....	4 00
Pipe Paradox and Balls,.....	1 25	Conductometer, six Rods,.....	2 00
Water Hose and Jet,.....	1 00	Pair of Pendent Spoons,.....	1 25
Straight Brass Jet,.....	75	Fire Syringe and Tinder,.....	1 50
Condensation Gauge Syphon,....	3 00	Set of Wire Gauze, three,.....	75
Condensation Gauge Globe,.....	1 50	Blowpipe,.....	50
Condensation Gauge, graduated,.,	1 50	Elevating Stand, &c.,.....	1 50
Dozen Crushing Squares,.....	1 00	Large Gas Bag and Stopcock,....	5 00
Dozen Sinking Globes,.....	50	Set of Crucibles,.....	20
Bell for Condensed Air,.....	1 25	Chemical Thermometer,.....	2 50
Thermometer for Condens. Cham.,	1 00		

Spirit Lamp,	1 00	Y Armature,	75
Aphlogistic Lamp,	2 00	Star Armature,	1 00
Dropping Tube,	25	Magnetic Needle and Stand,	1 00
Graduated Oz. Measure,	1 00	Galvanic Battery,	25 00
Measure, ten cubic inches,	1 25	Powder Cup,	50
Dozen Test Tubes, assorted,	1 50	Voltaic Pistol,	4 00
Graduated Tube, cubic inch,	50	Electro Magnet,	5 00
Condensation Tube,	75	Coil and Hem. Magnets,	3 50
Flasks, six, assorted,	2 20	Magnetizing Helix,	3 00
Glass Funnel, two,	60	Galvanometer,	3 00
Flasks, flat bottom, six,	2 50	Orsted's Galvanometer,	4 00
Globe Receivers, two,	80	Terrestrial Helix,	2 00
Tubular Retorts, six, assorted, ...	2 50	De la Rive's Ring,	1 25
Chemical Furnace,	10 00	Bell Engine,	12 00
Iron Tube for Decomposing,	1 00	Revolving Electro Magnet,	5 00
Evaporating Dishes, three,	75	Thermo-Electric Arch,	5 00
Wedgwood do., five,	1 50	Analysis of Shocks Apparatus, ..	12 00
Glass Mortar and Pestle,	1 00	Shocking Handles,	1 50
Wedgwood do.,	1 25	Connecting Wires,	50
Platina Spatula,	1 50	Magneto-Electric Machine,	40 00
Hydrogen Balloon,	3 00	Decomposing Cell,	3 00
Stirring Rods, Glass, six,	75		
Bologna Vials, dozen,	1 00	Mechanics, Astronomical, Op-	
Prince Rupert's Drops,	50	tics, &c.,	200 00
Matrasses, three, assorted,	1 10	Pneumatics,	250 00
Alembic,	1 75	Electrics,	210 00
Steam Balls, dozen,	50	Chemicals,	200 00
Brass Steam Globe and Jet,	1 50	Galvanic, &c.,	100 00
Wollaston's Steam Apparatus, ..	3 00		\$1000 00
Marcet's Steam Globe and Fix-			
tures,	25 00	Set of Chemical Substances,	
Chamberlain's Steam Flask and		for use with the above Ap-	
Fixtures,	8 00	paratus,	20 00
Sul. Copper Battery,	3 00		
Bar Magnet and Keeper,	1 00		
U Magnet and Wheel Armature, ..	3 00		
Bar Armature,	50		

NOTE.—See page 347, Apparatus, figured and described in Pneumatics, but used in Chemistry.

MISCELLANEOUS SUGGESTIONS.

HINTS RESPECTING BLACKBOARDS.

The upper portion of the standing blackboard should be inclined back a little from the perpendicular, and along the lower edge there should be a projection or trough to catch the particles detached from the chalk or crayon when in use, and a drawer to receive the sponge, cloth, lamb's-skin, or other soft article used in cleaning the surface of the board.

Blackboards, even when made with great care, and of the best seasoned materials, are liable to injury and defacement from warping, opening of seams, or splitting when exposed to the overheated atmosphere of school-rooms, unless they are set in a frame like a slate, or the panel of a door.

By the following ingenious, and cheap contrivance, a few feet of board can be converted into a table, a sloping desk, one or two blackboards, and a form or seat, and the whole folded up so as not to occupy a space more than five inches wide, and be easily moved from one room to another. It is equally well adapted to a school-room, class-room, library or nursery.

ff Under side of the swinging board, suspended by rule-joint hinges, when turned up, painted black or dark chocolate.

a d Folding brackets, inclined at an angle of 75 degrees, and swung out to support the board when a sloping desk is required.

b c Folding brackets to support the swinging board when a bench or flat table is required.

eee Uprights attached to the wall.

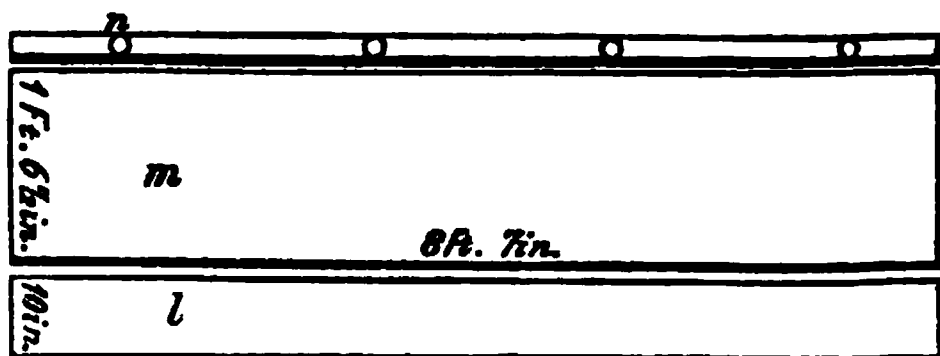
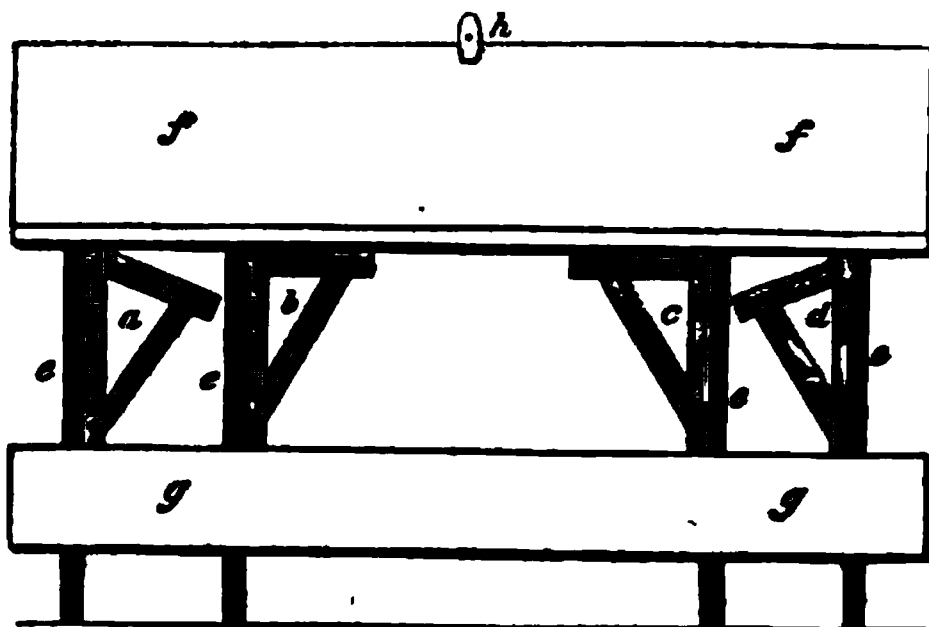
g g Form to be used when the swinging board is let down, and to be supported by folding legs. The under side can be used as a blackboard for small children.

h A wooden button to retain the swinging board when turned up for use as a blackboard.

n Opening to receive inkstands, and deposit for slate, pencil, chalk, &c.

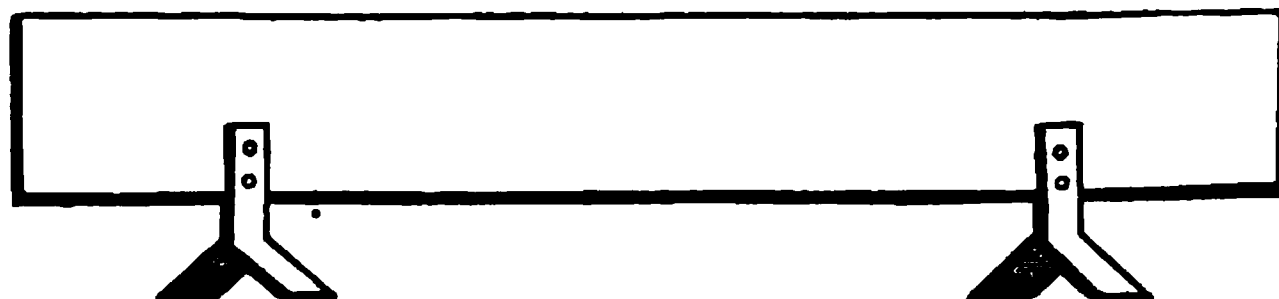
m Surface of swinging board when let down.

l Surface of form or bench.



When not in use, or let down, the desk and form should hang flush with each other.

A cheap movable blackboard can be made after the following cut (Fig. 3.



A movable stand to support a blackboard may be made like a painter's easel, as represented in the accompanying cut.

a, Pine for board to rest on. *c*, Hinge or joint to the supporting legs, which are braced by hook *b*, and may be folded up, and the stand put away in a closet. A stand of this kind is convenient to display outline and other maps, reading lessons and other diagrams.



A large movable blackboard may be made as represented in the accompanying cut. An upright frame, strongly braced by cross-pieces (*a*) is inserted into the feet (*b*), or horizontal supports having castors, on which the whole may be rolled on the floor. Within grooves on the inside of this upright frame is a smaller frame (*c*) hung by a cord which passes over a pulley (*d*), and is so balanced by weights, concealed in the upright parts, as to admit of being raised or lowered conveniently. Within this inner frame is hung the blackboard on pivots, by which the surface of the board can be inclined from a perpendicular.

A cheaper movable frame, with a blackboard suspended on a pivot, can be made as represented in the lower diagram. The feet, if made as represented in this cut, will be liable to get broken.

Composition for Blackboards.

Lampblack and flour of emery mixed with spirit-varnish.

No more lampblack and flour of emery should be used than are sufficient to give the required black and abrading surface; and the varnish should contain only sufficient gum to hold the ingredients together, and confine the composition to the board. The thinner the mixture, the better.

The lampblack should first be ground with a small quantity of alcohol, or spirit-varnish, to free it from lumps.

The composition should be applied to the smoothly-planed surface of the board, with a common painter's brush. Let it become *thoroughly dry and hard before it is used*. Rub it down with pumice-stone, or a piece of smooth wood covered with the composition.

This composition may also be used on the walls.

Slate Blackboard.

In the class-rooms of the American Asylum for the Deaf and Dumb, and all similar institutions, where most of the instruction is given by writing, and drawings on the blackboard, large slates from three feet wide, to four feet long are substituted for the blackboard. These slates cost from \$2 to \$3, and are superior to any other form of blackboard, and in a series of years prove more economical.

Plaster Blackboard.

As a substitute for the painted board, it is common to paint black a portion of the plastered wall when covered with hard finish, (i. e. plaster of Paris and sand;) or to color it by mixing with the hard finish a sufficient quantity of lamp-black, wet with alcohol, at the time of putting it on. The hard finish, colored in this way, can be put on to an old, as well as to a new surface. Unless the lamp-black is wet with alcohol, or sour beer, it will not mix uniformly with the hard finish, and when dry, the surface, instead of being a uniform black, will present a spotted appearance.

Canvas Blackboard.

Every teacher can provide himself with a portable blackboard made of canvas cloth, 3 feet wide and 6 feet long, covered with three or four coats of black paint, like Winchester's Writing Charts. One side might, like this chart, present the elements of the written characters classified in the order of their simplicity, and guide-marks to enable a child to determine with ease the height, width, and inclination of every letter. Below, on the same side, might be ruled the musical scale, leaving sufficient space to receive such characters as may be required to illustrate lessons in music. The opposite side can be used for the ordinary purposes of a blackboard. When rolled up, the canvas would occupy a space three feet long, and not more than three inches in diameter.

Directions for making Crayons.

A school, or the schools of a town, may be supplied with crayons very cheaply, made after the following directions given by Professor Turner of the American Asylum for the Deaf and Dumb.

Take 5 pounds of Paris White, 1 pound of Wheat Flour, wet with water, and knead it well, make it so stiff that it will not stick to the table, but not so stiff as to crumble and fall to pieces when it is rolled under the hand.

To roll out the crayons to the proper size, two boards are needed, one, to roll them on; the other to roll them with. The first should be a smooth pine board, three feet long, and nine inches wide. The other should also be pine, a foot long, and nine inches wide, having nailed on the under side, near each edge, a slip of wood one third of an inch thick, in order to raise it so much above the under board, as, that the crayon, when brought to its proper size, may lie between them without being flattened.

The mass is rolled into a ball, and slices are cut from one side of it about one third of an inch thick; these slices are again cut into strips about four inches long and one third of an inch wide, and rolled separately between these boards until smooth and round.

Near at hand, should be another board 3 feet long and 4 inches wide, across which each crayon, as it is made, should be laid so that the ends may project on each side—the crayons should be laid in close contact and straight. When the board is filled, the ends should be trimmed off so as to make the crayons as long as the width of the board. It is then laid in the sun, if in hot weather, or if in winter, near a stove or fire-place, where the crayons may dry gradually, which will require twelve hours. When thoroughly dry, they are fit for use.

An experienced hand will make 150 in an hour.

GOODYEAR'S METALLIC GUM-ELASTIC, OR VULCANIZED INDIA RUBBER.

The fabric known as "*Goodyear's Gum-elastic, or Vulcanized India rubber*," invented and manufactured by Charles Goodyear, of New Haven, Conn., is capable of many highly useful applications in the school-room, and for educational purposes generally. By the changes wrought by Mr. Goodyear in the construction of his fabrics, all of the remarkable properties of the gum in its native state are preserved and improved, while its defects and objectional features are obviated. There seems to be no limit to the many useful purposes to which it may be applied, in every department of the useful arts, and of practical life, and the public is not yet apprised of its manifold adaptations to humane purposes, and to the protection of life and property. We shall here notice only a few of its many useful applications in the school-room, and for school purposes generally.

Book-binding or Covers.

Several styles of Goodyear's fabrics are admirably adapted to the binding, or covers of school-books. A cover of this material does not crack, or warp, is not injured by water or oil, is not easily soiled, and if soiled, can be readily cleaned. A school-book bound in this way, we have every reason to suppose, will outlast, in the ordinary "wear and tear" of a child's use, (except that of the knife, which ought never to be allowed in a child's hand in the school-room,) a dozen bound in the best style with any kind of leather.

School Books.

Its uses are not confined to covers, but school books can be printed on this fabric, which can be manufactured of suitable thinness for this purpose, and at the same time have a strength of texture, which will not tear, but outlast the best linen paper, and at the same time be readily cleaned when soiled.

When school books are printed on this fabric, and bound in covers of the same, one of the greatest items of educational expense will be reduced.

Maps and Charts.

We have seen beautiful specimens of maps printed on various specimens of a new fabric, recently invented, and called *vegetable leather, gum-elastic vellum*, and *metallic tissue*, which will admit of the roughest use, and are capable of being handled for years without any injury, and can be rolled or folded up when not in use. We see no difficulty in printing outline maps, charts, and diagrams of all kinds on this fabric, which can be rolled up when not needed, and which can be washed and wiped clean with sponge, if soiled from use, or from the dust and smoke of the school-room. Both sides of the fabric can be used for the purposes of printing. The outline maps, if made of suitable fabric, can be filled up by the scholar, and the pencil marks erased by the sponge. Maps of this material can be so made as to exhibit the elevations and depressions on the earth's surface.

Globes.

We have seen beautiful specimens of globes, celestial and terrestrial, and of a great variety of sizes, from three inches to three feet, made of the fabric above described, such as *vegetable leather, or gum-elastic vellum*. When embossed, they show the elevations and depressions, the mountains and valleys, and water-courses of the earth's surface. When inflated with gas lighter than atmospheric air, they float about the room. If soiled, they can be easily cleaned with the sponge, and will bear the roughest usage. If the great outlines of the globe only are printed, the pupil can be exercised in filling up the blank with a lead pencil. When articles made of this fabric come into demand, our schools can be furnished with globes almost at the price of children's toys, and thus the great objection of expense will no longer prevent the introduction of this

piece of apparatus, and of visible illustration, into every school of every grade. When not inflated, the globe of three feet can be packed away in a space of about as many inches.

Floor Cloth, or Carpet.

This fabric is admirably adapted for carpeting the aisles of a school-room, both to prevent reverberation, and to secure cleanliness. It can be easily cleaned, and will wear as long as the floor itself.

Blackboard and Desk Covering.

By using different styles of this fabric, a suitable surface of any desirable size can be obtained for the lead or slate pencil, which can be attached permanently to a wall, or be made in a portable form.

It can be attached to the top of the desk, and thereby prevent all reverberation. When thus applied, it will not gather dust, or wear out, like cloth, but can be kept clean with a sponge, and will wear as long as the wood itself. The fabric used for covering a desk, can be of the same style of fabric as that used for a blackboard or slate, and thus answer all the purposes of either of these articles of apparatus.

Sponge.

An article is made of the gum, leavened and raised like bread, and called a sponge, from its close resemblance, in texture and uses, to the natural sponge. It is the best article which we have seen for erasing marks made by a lead or slate pencil, or chalk, on paper, slate, or blackboard, or prepared surface of any kind in the nature of the blackboard or slate. Besides answering all the purposes of the sponge in such applications, it will remove the oiliness which is frequently communicated to the slate by the hand, &c. It is also invaluable as a mop, or scrub, or shoe mat, at the door of the school-house, as it is not injured by exposure, or the roughest and most constant usage.

Pen and Pencil Wiper.

The article used for making the sponge can also be made into a pen-wiper, and can be attached to the inkstand, (which can also be manufactured of the same material.) It can also be attached to the end of the lead pencil, or to the port-crayon, or handle for the more convenient use of the crayon, chalk, or slate pencil. It will work much closer than the native gum, and is admirably adapted to drawing purposes.

Calisthenic Exercises.

Every school, and especially every school for girls and young ladies, should be supplied with swings, and other apparatus for developing, expanding, and strengthening the muscles of the chest arms, &c., and for these purposes several styles of this fabric are admirably adapted.

Drawing and Writing Tablets.

One style of the improved metallic fabric is admirably adapted as a substitute for paper or slate, for introductory exercises in writing and drawing, as each impression of the pencil can be removed by the sponge, and a fresh, clean surface as constantly secured. The same material can be used for books for memoranda, records of attendance, returns of school committees, &c.

The excellence of this fabric for all school purposes, as compared with paper, and other materials used for similar purposes, consists in its durability and economy.

LIBRARY.

EVERY school should be furnished with a Library which should include,

1. Books on schools and school-systems, for the use of school officers and parents; and on the theory and practice of teaching, for the professional instruction of teachers.

2. Books of reference, for the use principally of teachers.

3. Books for circulation among the pupils.

4. Books for circulation among the parents, and inhabitants of the District, or neighborhood.

In the arrangement, and furniture of a school-house, provision should be made for the Library.

The following catalogue may assist those who are charged with the purchase of books:

BOOKS ON EDUCATION.

THE SCHOOL AND SCHOOL-MASTER, by Alonzo Potter, (Bishop of Pennsylvania.) and George B. Emerson. New York: Harper and Brothers. Boston: Fowle and Capen. Price \$1.00. 551 pages.

This volume was prepared at the request of the late James Wadsworth, of Geneseo, New York, with special reference to the condition and wants of common schools in that State. Its general principles and most of its details are applicable to similar schools in other parts of the country, and, indeed, to all seminaries employed in giving elementary instruction. Mr. Wadsworth directed a copy of it to be placed in each of the school libraries of New York, at his expense, and his noble example was followed in respect to the schools of Massachusetts, by the Hon. Martin Brimmer, of Boston.

CONTENTS. PART I. Introduction. **CHAPTER I. EDUCATION OF THE PEOPLE.** Sec. I. What is Education. Sec. II. Prevailing Errors in regard to the Nature and End of Education. Sec. III. The same Subject continued. Sec. IV. Same Subject continued. Sec. V. What is the Education most needed by the American People. Sec. VI. The Importance of Education, 1. To the Individual. Sec. VII. The Importance of Education, 2. To Society.

CHAPTER II. COMMON SCHOOLS. Sec. I. Relation of Common Schools to other Means of Education. Sec. II. *Present State of Common Schools.*—1. School-houses. 2. Manners. 3. Morals. Sec. III. *Same Subject continued.*—4. Intellectual Instruction. 5. Irregular Attendance. Sec. IV. *How can Common Schools be improved?*—1. Discussion. 2. Female Teachers. 3. Union or High Schools. 4. Consolidation of Districts. Sec. V. *The Improvement of Common Schools continued.* Organization in Cities.—1. District System. 2. Monitorial. 3. Fitch System. 4. American system. 5. Diversity of Class-books. Sec. VI. *Same Subject, continued.*—Education of Teachers.

CONTENTS. PART II. Introduction. **BOOK I. QUALITIES.** Chap. I. Mental and Moral, important in a Teacher. Chap. II. Health. Exercise. Diet. Sleep. Recreation.

BOOK II. STUDIES. Chap. I. Laws of the Creation. Chap. II. Natural Laws. Chap. III. Independence of the Natural Laws. Chap. IV. Higher Studies. Chap. V. Advantages of a Teacher's Life.

BOOK III. DUTIES. Chap. I. To Himself. Self-Culture. Chap. II. To his Pupils, to give them means of Knowledge. Chap. III. To his Pupils, to form their Moral Character. Chap. IV. To his Pupils, Cultivation of their Powers. Chap. V. Communication of Knowledge. Chap. VI. To his Fellow-Teachers. Chap. VII. To Parents and the Community.

BOOK IV. THE SCHOOL. Chap. I. Organization. Chap. II. Instruction. General Principles. Chap. III. Teaching: 1. Reading. 2. Spelling. 3. Grammar. 4. Writing. 5. Draw-

ing. 6. Arithmetic. 7. Accounts. 8. Geography. 9. History. 10. Physiology. 11. Composition. Chap. IV. Government.

BOOK V. THE SCHOOL-HOUSE. Chap. I. Situation. Chap. II. Size. Chap. III. Position and Arrangement. Chap. IV. Light. Warming. Ventilation.

THE TEACHER'S MANUAL, by Thomas H. Palmer. Boston: Marsh, Capen, Lyon & Webb, 1840. pp. 263. Price, 75 cents.

This work received the prize of five hundred dollars, offered by the American Institute of Instruction, in 1838, for "the best Essay on a system of Education best adapted to the Common Schools of our country."

CONTENTS. PART I. Chapter I. Introductory. Chapter II. Who are our Schoolmasters. Chapter III. Physical Education. Chapter IV. Intellectual Education. Chapter V. Intellectual Education, continued. Chapter VI. Moral Education. Chapter VII. Recapitulation.

PART II. Chapter I. Introductory. Chapter II. Physical Education. Chapter III. Physical Education, continued. Chapter IV. Physical Education, continued. Chapter V. Intellectual Education. Chapter VI. Intellectual Education, continued. Chapter VII. Intellectual Education, continued. Chapter VIII. Intellectual Education, continued. Chapter IX. Intellectual Education, continued. Chapter X. Intellectual Education, concluded. Chapter XI. Moral Education. Chapter XII. Moral Education, continued. Chapter XIII. Conclusion.

THE TEACHER TAUGHT, by Emerson Davis, late Principal of the Westfield Academy. Boston: Marsh, Capen, Lyon & Webb, 1839. pp. 79. Price 37½ cents.

This valuable work was first published in 1833, as "An Abstract of a Course of Lectures on School-keeping."

SLATE AND BLACKBOARD EXERCISES, By William A. Alcott. New York: Mark H. Newman. Price 37 cents.

The chapters in this little work were first published in the Connecticut Common School Journal, in 1841. The various suggestions and methods are highly practical.

THEORY AND PRACTICE OF TEACHING, by David P. Page, Principal of the New York State Normal School. New York: A. S. Barnes & Co.

CONTENTS. CHAPTER I. The Spirit of the Teacher. CHAPTER II. Responsibility of the Teacher. Sec. I. The Neglected Tree. Sec. II. Extent of Responsibility. Sec. III. The Auburn Prison. CHAPTER III. Habits of the Teacher. CHAPTER IV. Literary Qualifications of the Teacher. CHAPTER V. Right Views of Education. CHAPTER VI. Right Modes of Teaching. Sec. I. Pouring-in Process. Sec. II. Drawing-out Process. Sec. III. The more Excellent Way. Sec. IV. Waking up Mind. Sec. V. Remarks. CHAPTER VII. Conducting Recitations. CHAPTER VIII. Exciting an Interest in Study. Sec. I. Incentives. Emulation. Sec. II. Prizes and Rewards. Sec. III. Proper Incentives. CHAPTER IX. School Government. Sec. I. Requisites in the Teacher for Government. Sec. II. Means of securing Good Order. Sec. III. Punishments, Improper, Proper. Sec. IV. Corporal Punishment. Sec. V. Limitations and Suggestions. CHAPTER X. School Arrangements. Sec. I. Plan of Day's Work. Sec. II. Interruptions. Sec. III. Recesses. Sec. IV. Assignment of Lessons. Sec. V. Reviews. Sec. VI. Examinations, Exhibitions, Celebrations. CHAPTER XI. The Teacher's Relation to the Parents of his Pupils. CHAPTER XII. The Teacher's Care of his Health. CHAPTER XIII. The Teacher's Relation to his Profession. CHAPTER XIV. Miscellaneous Suggestions. Sec. I. Things to be avoided. Sec. II. Things to be performed. CHAPTER XV. The Rewards of the Teacher.

HINTS AND METHODS FOR THE USE OF TEACHERS. Hartford: Price 25 cents.

This volume is made up principally of selections from publications on methods of teaching, not easily accessible; and under each subject discussed, reference is made to various volumes, where additional suggestions can be found.

THE DISTRICT SCHOOL AS IT WAS, by one who went to it, (*Rev. Warren Burton.*) New York: J. Orville Taylor, 1838.

In this amusing picture of "the lights and shadows" of school life as it was in New England twenty years ago, the teachers and scholars of some of our District Schools as they are, will recognize the school-house, books, practices, and methods with which they are too familiar.

CONFESSIONS OF A SCHOOL-MASTER, by Dr. William A. Alcott. New York: Mark H. Newman. Price 50 cents.

If our teachers will read these confessions of errors of omission and commission, and the record which it gives of real excellencies attained by the steps of a slow and laborious progress, they will save themselves the mortification of the first, and realize earlier the fruits of the last. Few men have the moral courage to look their former bad methods so directly in the face. Every young teacher should read this book.

CONTENTS. CHAPTER I. MY INTRODUCTION TO SCHOOL KEEPING. Section I. Preparation and Engagement. Section II. The Examination. Section III. My Cogitations.

CHAPTER II. MY FIRST YEAR. Section I. First day of School. Section II. General Course of Instruction. Section III. Particular Errors. Section IV. Religious Exercises.

CHAPTER III. MY SECOND YEAR. Section I. Course of Instruction. Section II. Serious Mistakes.

CHAPTER IV. MY THIRD YEAR. Section I. Complaint to the Grand Jurors. Section II. Introduction of a New School Book. Section III. Meeting of the Schools.

CHAPTER V. FOURTH AND FIFTH YEARS. Section I. Modes of Punishing. Section II. Attending to other Employments. Section III. Late Evening Visits. Section IV. Studies and Methods.

CHAPTER VI. MY SIXTH YEAR. Section I. Teaching by the Year. Terms and Object. Section II. Description of the School and School-house. Section III. First Efforts at Improvement. Punctuality. Section IV. Methods and Discipline. Section V. Schools Neglected by Parents. Section VI. School Libraries. Section VII. Improper Company. Example.

CHAPTER VII. MY SEVENTH YEAR. Section I. Divided Attention. Section II. Teaching on the Sabbath.

CHAPTER VIII. MY EIGHTH YEAR. Section I. General Account of my School. Section II. Causes of Failure.

CHAPTER IX. MY NINTH YEAR. Section I. A Novel Enterprise. Section II. Methods of Teaching. Discipline.

CHAPTER X. MY EXPERIENCE AS A SCHOOL VISITOR. Section I. Examination of Teachers. Section II. Special Visits to Schools. Section III. Meetings for Improvement. Section IV. Introduction of a New Reading Book.

CHAPTER XI. MY TENTH YEAR IN SCHOOL. Section I. Commencement of School. Section II. Spelling, Reading, Writing, etc. Section III. Teaching Geography. Section IV. A Practical Exercise. Section V. Experiment in Teaching Etymology. Section VI. Teaching Orthography. Section VII. Forcing Knowledge. Section VIII. Teaching Pupils to sit still. Section IX. My Moral Influence. Section X. My Ill Health. Section XI. Countenancing the Sports of my Pupils. Section XII. Discipline.

THE SCHOOL TEACHER'S MANUAL, by Henry Dunn, Secretary of the British and Foreign School Society, London. Hartford: Reed & Barber, 1839. pp. 223. Price 50 cents.

The American edition of this work is edited by Rev. Thomas H. Gallaudet, which is the best evidence that could be given of the general soundness of the views presented by the English author.

TEACHERS' INSTITUTE, by W. B. Fowle. Boston.

TEACHING A SCIENCE: THE TEACHER AN ARTIST, by Rev. B. R. Hall. New York: Baker & Scribner.

CORPORAL PUNISHMENT, by Lyman Cobb. New York: Mark H. Newman.

SCHOOL KEEPING, by an Experienced Teacher. Philadelphia: John Grigg, 1831.

THE SCHOOL-MASTER'S FRIEND, with the Committee-man's Guide, by Theodore Dwight, Jr. pp. 360. New York, Roe Lockwood, 415, Broadway, 1835.

THE TEACHER, or Moral Influences in the Instruction and Government of the Young, by Jacob Abbott. Boston, Whipple & Damrell, No. 9 Cornhill, Boston. Price 75 cents.

THEORY OF TEACHING, with a few practical Illustrations, by a Teacher. Boston: E. P. Peabody, 1841. pp. 128.

DISTRICT SCHOOL, by J. Orville Taylor. New York: Harper & Brothers, 1834.

LECTURES ON EDUCATION, by Horace Mann, Secretary of the Massachusetts Board of Education. Boston: Fowle & Capen, 1845. Pp. 338. Price \$1.00.

This volume embraces seven lectures, most of which were delivered before the Annual Common School Conventions, held in the several counties of Massachusetts, in 1838, '39, '40, '41, and '42. They are published in this form at the request of the Board of Education. No man, teacher, committee, parent, or friend of education generally, can read these lectures without obtaining much practical knowledge, and without being fired with a holy zeal in the cause.

CONTENTS. *Lecture I.* Means and Objects of Common School Education. *Lecture II.* Special Preparation, a prerequisite to Teaching. *Lecture III.* The Necessity of Education in a Republican Government. *Lecture IV.* What God does, and what He leaves for Man to do, in the work of Education. *Lecture V.* An Historical View of Education; showing its Dignity and its Degradation. *Lecture VI.* On District School Libraries. *Lecture VII.* On School Festivals.

LOCKE AND MILTON ON EDUCATION. Boston: Gray & Brown, 1830.

THE EDUCATION OF MOTHERS, by L. Aimé-Martin. Philadelphia: Lea & Blanchard, 1843.

EDUCATION AND HEALTH, by Amariah Brigham. Boston: Marsh, Capen & Lyon, 1843.

DR. CHANNING ON SELF CULTURE. Boston: Monroe & Co. Price 33 cents.

MISS SEDGWICK ON SELF TRAINING, OR MEANS AND ENDS. New York: Harper & Brothers.

These two volumes,—the first written with special reference to young men, and the last, to young women, should be read by all young teachers, who would make their own individual character, attainments, and conduct, the basis of all improvement in their profession.

The following works have special reference to instruction in Infant and Primary Schools:

EXERCISES FOR THE SENSES. London: Charles Knight & Co. Published under the superintendence of the Society for the Diffusion of Useful Knowledge.

LESSONS ON OBJECTS: as given to children between the ages of six and eight, in a Pestalozzian School at Cheam, Sussex, by C. Mayo. London: Seeley, Burnside & Seeley, Fleet street, 1845.

LESSONS ON SHELLS, as given to children between the ages of eight and ten, and by the author of "Lessons on Objects." London: Seeley, Burnside & Seeley, 1846.

PATTERSON'S ZOOLOGY FOR SCHOOLS. London.

MODEL LESSONS FOR INFANT SCHOOL TEACHERS, by the author of "Lessons on Objects." Parts I. and II. London: Seeley, Burnside & Seeley, 1846.

WILDERSPIN'S INFANT SYSTEM. London: James S. Hodgson, 112 Fleet street.

WILDERSPIN'S ELEMENTARY EDUCATION. London: James S. Hodgson.

CHAMBERS' EDUCATIONAL COURSE,—INFANT EDUCATION, from two to six years of age. Edinburgh: W. R. Chambers.

PRACTICAL EDUCATION, by Maria Edgeworth. New York: Harper & Brothers, 1835.

The following works will exhibit a pretty full view of the progress and condition of education in Europe.

SMITH'S HISTORY OF EDUCATION. Harper & Brothers. Price 50 cents.

This work is substantially an abridgement of the great German work of Schwartz, and is worthy of an attentive perusal, not only for its historical view of the subject, but for the discussion of the general principles which should be recognized in every system of education.

BIBER'S MEMOIR OF PESTALOZZI, and his plan of Education. London: I. Souter, 1831.

EDUCATIONAL INSTITUTIONS OF DR. FELLEBERG, with an Appendix containing Woodbridge's Sketches of Hofwyl. London: Longman, 1842.

REPORT ON EDUCATION IN EUROPE, by Alexander Dallas Bache. Philadelphia: Lydia R. Bailey, 1829. pp. 666.

REPORT ON ELEMENTARY INSTRUCTION IN EUROPE, by Calvin E. Stowe, D. D. Boston: Thomas H. Webb & Co. Price 31 cents.

SEVENTH ANNUAL REPORT of the Secretary of the (Massachusetts) Board of Education, Hon. Horace Mann, 1843. Boston: Fowle and Capen. Price 25 cents.

These three reports introduce the teacher into the school-rooms of the best teachers in Europe, and enable him to profit by the observations and experience of men who have been trained by a thorough preparatory course of study and practice at home, to the best methods of classification, instruction, and government of schools, as pursued abroad.

ACCOUNT OF THE EDINBURGH SESSIONAL SCHOOL, Edinburgh, by John Wood. Boston: Monroe & Francis, 1830.

COUSIN'S REPORT ON PUBLIC INSTRUCTION IN PRUSSIA, translated by Sarah Austin. New York: Wiley & Long, 1835.

WILLM ON THE EDUCATION OF THE PEOPLE, translated from the French by Prof. Nichol. Glasgow: 1847.

MANUAL OF THE SYSTEM OF PRIMARY INSTRUCTION pursued in the model schools of the British and Foreign School Society. London: 1839.

MINUTES OF THE PROCEEDINGS OF THE COMMITTEE OF COUNCIL ON EDUCATION, from 1838 to 1844. London: 8 vols.

STOW'S TRAINING SYSTEM, as pursued in the Glasgow Normal Seminary. Edinburgh: 1840.

AN OUTLINE OF THE METHODS OF TEACHING, in the Model School of the Board of National Education for Ireland. Dublin: I. S. Folds, 1840.

COUSIN'S REPORT ON PRIMARY INSTRUCTION IN HOLLAND. London: 1835.

GIRARDIN'S REPORT ON EDUCATION IN AUSTRIA, BAVARIA, &c. Paris: 1835.

HICKSON'S ACCOUNT OF THE DUTCH AND GERMAN SCHOOLS. London: Taylor and Walton, 1840.

INTRODUCTION TO THE SCIENCE AND ART OF EDUCATION AND INSTRUCTION FOR MASTERS OF PRIMARY SCHOOLS, by B. S. Denzel, President of Royal Training College for School-masters at Esslingen. 6 vols. Stuttgart, 1839.

This is considered the most complete German Treatise on the subject

LECTURES AND PROCEEDINGS OF THE AMERICAN INSTITUTE OF INSTRUCTION from 1830 to 1847. Eighteen volumes. Boston: Ticknor.

These volumes embrace more than 150 lectures and essays, on a great variety of important topics, by some of the ablest scholars and most successful teachers in the country.

CONTENTS.—VOL. I, for 1830. Introductory Discourse, by *President Wayland*. *Lecture I.* Physical Education, by *John C. Warren, M. D.* *Lecture II.* The Development of the Intellectual Faculties, and on Teaching Geography, by *James G. Carter*. *Lecture III.* The Infant School System, by *William Russell*. *Lecture IV.* The Spelling of Words, and a Rational Method of Teaching their Meaning, by *Gideon F. Thayer*. *Lecture V.* Lyceums and Societies for the Diffusion of Useful Knowledge, by *Nehemiah Cleaveland*. *Lecture VI.* Practical Method of Teaching Rhetoric, by *Samuel P. Newman*. *Lecture VII.* Geometry and Algebra, by *F. J. Grund*. *Lecture VIII.* The Monitorial System of Instruction, by *Henry K. Oliver*. *Lecture IX.* Vocal Music, by *William C. Woodbridge*. *Lecture X.* Linear Drawing, by *Walter R. Johnson*. *Lecture XI.* Arithmetic, by *Warren Colburn*. *Lecture XII.* Classical Learning, by *Cornelius C. Felton*. *Lecture XIII.* The Construction and Furnishing of School-Rooms and School Apparatus, by *William J. Adams*.

VOL. II, for 1831. Introductory Lecture, by *James Walker*. *Lecture I.* Education of Females, by *George B. Emerson*. *Lecture II.* Moral Education, by *Jacob Abbott*. *Lecture III.* Usefulness of Lyceums, by *S. C. Phillips*. *Lecture IV.* Education of the Five Senses, by *William H. Brooks*. *Lecture V.* The Means which may be employed to stimulate the student without the aid of Emulation, by *John L. Parkhurst*. *Lecture VI.* Grammar, by *Gold Brown*. *Lecture VII.* Influence of Academies and High Schools on Common Schools, by *William C. Fowler*. *Lecture VIII.* Natural History as a Branch of Common Education, by *Clement Durgin*. Prize Essay on School-Houses, by *W. A. Alcott*.

VOL. III, for 1832.—Introductory Discourse, by *Francis C. Gray*. *Lecture I.* The best Methods of Teaching the Living Languages, by *George Ticknor*. *Lecture II.* Some of the Diseases of a Literary Life, by *G. Hayward, M. D.* *Lecture III.* The Utility of Visible Illustrations, by *Walter R. Johnson*. *Lecture IV.* The Moral Influences of Physical Science, by *John Pierpont*. *Lecture V.* Prize Essay, on the Teaching of Penmanship, by *B. B. Foster*. *Lecture VI.* Nature and Means of Early Education, as deduced from Experience, by *A. B. Alcott*. *Lecture VII.* On Teaching Grammar and Composition, by *Ann Rand*.

VOL. IV, for 1833.—Introductory Lecture, by *William Sullivan*. *Lecture I.* On the Importance of a Knowledge of the Principles of Physiology to Parents and Teachers, by *Edward Reynolds, M. D.* *Lecture II.* The Classification of Schools, by *Samuel M. Burnside*. *Lecture III.* Primary Education, by *Gardner B. Perry*. *Lecture IV.* Emulation in Schools, by *Leonard Withington*. *Lecture V.* The best Method of Teaching the Ancient Languages, by *Alpheus S. Packard*. *Lecture VI.* Jacotot's Method of Instruction, by *George W. Greene*. *Lecture VII.* The best Method of Teaching Geography, by *W. C. Woodbridge*. *Lecture VIII.* Necessity of Educating Teachers, by *Samuel R. Hall*. *Lecture IX.* The Adaptation of Intellectual Philosophy to Instruction, by *Abijah R. Baker*. *Lecture X.* The best Mode of Teaching Natural Philosophy, by *Benjamin Hale*.

VOL. V, 1834.—Introductory Lecture, by *Caleb Cushing*. *Lecture I.* The best Mode of Fixing the Attention of the Young, by *Warren Burton*. *Lecture II.* The Improvement which may be made in the Condition of Common Schools, by *Stephen Farley*. *Lecture III.* Duties of Parents in regard to the Schools where their Children are instructed, by *Jacob Abbott*. *Lecture IV.* Maternal Instruction and Management of Infant Schools, by *M. M. Card*. *Lecture V.* Teaching the Elements of Mathematics, by *Thomas Sherwin*. *Lecture VI.* The Dangerous Tendency to Innovations and Extremes in Education, by *Hubbard Winslow*. *Lecture VII.* Union of Manual with Mental Labor, in a System of Education, by *Beriah Green*. *Lecture VIII.* The History and Uses of Chemistry, by *C. T. Jackson*. *Lecture IX.* Natural History as a Study in Common Schools, by *A. A. Gould, M. D.* *Lecture X.* Science of Government as a Branch of Popular Education, by *Joseph Story*.

VOL. VI, for 1835.—Introductory Lecture, by *W. H. Furness*. *Lecture I.* The Study of the Classics, by *A. Crosby*. *Lecture II.* Education for an Agricultural People, by *Samuel Nett, Jr.* *Lecture III.* Political Influence of Schoolmasters, by *E. Washburn*. *Lecture IV.* State and Prospects of the German Population of this Country, by *H. Bakum*. *Lecture V.* Religious Education, by *R. Park*. *Lecture VI.* Importance of an Acquaintance with the Philosophy of the Mind to an Instructor, by *J. Gregg*. *Lecture VII.* Ends of School Discipline, by *Henry L. McKean*. *Lecture VIII.* Importance and Means of Cultivating the Social Affections among Pupils, by *J. Blanchard*. *Lecture IX.* Meaning and Objects of Education, by *T. B. Fay*. *Lecture X.* Management of a Common School, by *T. Dwight, Jr.* *Lecture XI.* Moral and Spiritual Culture in Early Education, by *R. C. Waterston*. *Lecture XII.* Moral Uses of the Study of Natural History, by *W. Channing, M. D.* *Lecture XIII.* Schools of the Arts, by *W. Johnson*.

VOL. VII., for 1836.—*Lecture I.* Education of the Blind, by *Samuel G. Howe, M. D.* *Lecture II.* Thorough Teaching, by *William H. Brooks*. *Lecture III.* Physiology, or "The House I live in," by *William A. Alcott*. *Lecture IV.* Incitements to Moral and Intellectual Well-Doing, by *J. H. Belcher*. *Lecture V.* Duties of Female Teachers of Common Schools, by *Daniel Kimball*. *Lecture VI.* Methods of Teaching Elocution in Schools, by *T. D. P. Stone*. *Lecture VII.* Influence of Intellectual Action on Civilization, by *H. R. Cleaveland*. *Lecture VIII.* School Discipline, by *S. R. Hall*.

VOL. VIII., for 1837.—Introductory Discourse, by *Rev. Elihu White*. *Lecture I.* Study of the Classics, by *John Mulligan*. *Lecture II.* Moral Education, by *Joshua Bates*. *Lecture III.* Study of Natural History, by *John Lewis Russell*. *Lecture IV.* Comparative Merits of Private and Public Schools, by *Theodore Edson*. *Lecture V.* Elocution, by *David Footich, Jr.* *Lee*

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REPORTS AND DOCUMENTS RELATING TO THE COMMON SCHOOL SYSTEM OF CONNECTICUT. Hartford: Case, Tiffany & Co.

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" Address of the Board of Commissioners of C. S. to the People, 1838.

" First Annual Report to the Board of C. C. S., 1839; Second do. for 1840; Third do. for 1841; Fourth do. for 1842.

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" " " Tuscany, from Qu. Review.

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REPORT ON THE PUBLIC SCHOOLS OF RHODE ISLAND, for 1845,
by Henry Barnard, Commissioner of Public Schools. Providence:
C. Burnett, Jr.

Act for ascertaining the condition of the Public Schools, and the better management and improvement of the same.

Circular of Governor Fenner.

REPORT OF COMMISSIONER OF PUBLIC SCHOOLS.

- I. Mode of ascertaining the condition of Public Schools, and other means of popular education.**
1. By personal inspection and inquiry. 2. By circulars addressed to teachers and school committees. 3. By official returns and reports of school committees. 4. By statements in public meeting, 5—7.
- II. Measures adopted to improve the public schools under their present organization, and prepare the way for a more complete and efficient system of public instruction.** 1. By public lectures. 2. By conversation and letters. 3. By circulating tracts, periodicals, and documents relating to schools, school systems, &c. 4. By establishing a Library of Education in each town. 5. By associations for school improvement. 6. By assisting in the selection of good teachers. 7. By a more extensive employment of female teachers. 8. By a gradation of schools. 9. By teachers' associations, or institutes. 10. By an itinerating normal school agency. 11. By preparing the way for one normal school. 12. By making known plans of school-houses. 13. By school apparatus and library. 14. By lyceums, lectures, and library associations. 15. By preparing the draft of school act, 7—16.
- III. Defects in the former organization and administration of the system, with the outline of the existing organization.** 1. Summary of defects. 2. Outline of the system as reorganized.
- IV. Condition of the public schools, with remedies for existing defects, and suggestions for their increasing usefulness.** 1. Organization. 2. School-houses. 3. School attendance. 4. Classification of schools. 5. Agricultural districts. 6. Manufacturing districts. 7. City districts.

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JOURNAL OF THE RHODE ISLAND INSTITUTE OF INSTRUCTION:
commenced in 1845, and discontinued in 1849. Edited by Henry Barnard, Commissioner of Public Schools. The set consists of three volumes. Price \$3.50 per set.

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2. BOOKS OF REFERENCE.

A list of Dictionaries, Encyclopedias, and similar works, for reference by the teacher, and consultation in the school-room or library, is given on page 45.

3—4. CATALOGUE OF BOOKS FOR JUVENILE AND ADULT READING.

Committees will be aided in selecting books for District, Town, and Circulating Libraries, by consulting the Catalogue of the Pawcatuck Library, on page 429—548. Although the author of this treatise is responsible generally for this selection, which was made for a village library, and for all classes of readers, yet there are several volumes in the catalogue which were the donations of individuals, and others which were purchased because bound up with sets, the mass of which were unexceptionable. For a School Library, many of these volumes would be deemed unsuitable.

RULES FOR THE CARE AND PRESERVATION OF SCHOOL-HOUSES.

The following provisions are included among the Regulations for the Government of Teachers and Pupils of Public Schools, adopted by School Committees in most of the towns of Rhode Island:

For Teachers:

There shall be a recess of at least fifteen minutes in the middle of every half day; but the primary schools may have a recess of ten minutes every hour: at the discretion of the teacher.

It shall be the duty of teachers to see that fires are made, in cold weather, in their respective school-rooms, at a seasonable hour to render them warm and comfortable by school time; to take care that their rooms are properly swept and dusted; and that a due regard to neatness and order is observed, both in and around the school-house.

As pure air of a proper temperature is indispensable to health and comfort, teachers cannot be too careful in giving attention to these things. If the room has no ventilator, the doors and windows should be opened before and after school, to permit a free and healthful circulation of air; and the temperature should be regulated by a thermometer suspended, five or six feet from the floor, in such a position as to indicate as near as possible the average temperature, and should be kept about 65 degrees Fahrenheit.

The teachers shall take care that the school-houses, tables, desks, and apparatus in the same, and all the public property entrusted to their charge, be not cut, scratched, marked, or injured and defaced in any manner whatever. And it shall be the duty of the teachers to give prompt notice to one or more of the trustees, of any repairs that may be needed.

For Pupils:

Every pupil who shall, *accidentally* or *otherwise*, injure any school property, whether fences, gates, trees or shrubs, or any building or any part thereof; or break any window glass, or injure or destroy any instrument, apparatus or furniture belonging to the school, shall be liable to pay all damages.

Every pupil who shall any where, on or around the school premises, use or write any profane or unchaste language, or shall draw any obscene pictures or representations, or cut, mark, or otherwise *intentionally* deface any school furniture or buildings, or any property whatsoever belonging to the school estate, shall be punished in proportion to the nature and extent of the offence, and shall be liable to the action of the civil law.

No scholar of either sex shall be permitted to enter any part of the yard or buildings appropriated to the other, without the teacher's permission.

Smoking and chewing tobacco in the school-house or upon the school premises, are strictly prohibited.

The scholars shall pass through the streets on their way to and from school in an orderly and becoming manner; shall clean the mud and dirt from their feet on entering the school-room: and take their seats in a quiet and respectful manner, as soon as convenient after the first bell rings; and shall take proper care that their books, desks, and the floor around them, are kept clean and in good order.

It is expected that all the scholars who enjoy the advantages of public schools, will give proper attention to the *cleanliness* of their persons, and the neatness and decency of their clothes—not only for the moral effect of the habit of neatness and order, but that the pupils may be at all times prepared, both in conduct and external appearance—to receive their friends and visitors in a respectable manner; and to render the school-room pleasant, comfortable and happy for teachers and scholars.

In the "*Regulations of the Public Schools in the city of Providence*," it is made the duty "of the principal teacher in each school-house, for the compensation allowed by the Committee, to employ some suitable person to make the fires in the same when necessary, and to see that this important work is properly and economically done;" also "for the compensation

allowed, to employ some suitable person to sweep the room and its entries daily, and dust the blinds, seats, desks, and other furniture in the same, and to clean the same once a quarter, and to see that this work is neatly and properly done."

The teachers must also "take care that the school-houses, the apparatus in the same, and all the public property entrusted to their charge, be not defaced, or otherwise injured by the scholars, and to give prompt notice to the Superintendent of any repairs and supplies that may be needed."

PRACTICAL SUGGESTIONS RESPECTING VENTILATION, FIRES, SWEEPING AND DUSTING.

The following suggestions are taken from the *Manual of the System of Discipline and Instruction for the Schools of the Public School Society of New York*:

VENTILATION.

Strict attention should be paid to all the means provided for temperature and ventilation. During the season of fires, the thermometer should be watched,—and the ventilating flues, windows, doors, and stoves, should be constantly attended to,—and every precaution taken, to give as pure an atmosphere to the school-room, as circumstances will allow. This is not only necessary, for a proper and free exercise of the physical powers,—but it will be found greatly to influence every mental exercise; for, both will partake of either languor, or vigor, according as ventilation is neglected, or duly attended to. In warm weather, the upper sashes should be down during school hours, and allowed to remain open about four inches during the night,—except, that on occasion of a storm, the windows against which it beats, may be closed. In winter, excepting when the weather is exceedingly cold and piercing, it may be of advantage to have two or more of the upper sashes down about an inch during the night; but these as well as the doors should be closed before kindling the fires. Two or more of the upper sashes should be drawn down at the end of the first half hour after opening school,—and again, for a short time at each successive half hour,—and whenever the thermometer rises to 70 degrees. At all seasons, the windows and doors should be thrown wide open for a few minutes during each recess, while the scholars are in the yard. The teacher should be careful to require all the scholars to go out, except such as may reasonably be excused on account of infirmity or sickness; and even these should be required to change their places, and to exercise themselves by walking to and fro in the school-room. At all seasons, at the close of school, all the doors and windows should be opened for a few minutes, in order that a pure atmosphere may be admitted and retained during the noon-time recess, or at night. A thermometrical diary must be kept during the winter season, and the temperature of the room noted at the opening, middle, and close, of each daily session. Further directions on this point are given in the instructions for making fires. The window-blinds and curtains are for the purpose of guarding against the sunshine, or observation from without. They should, therefore, be so managed, as only to exclude the direct rays of the sun, and kept open or shut accordingly. When required as a screen from observation, they should extend no farther than necessary for that purpose. Attention to these rules will give an air of cheerfulness within, so congenial to the young. It is important that this fact be impressed on all—that air, and light, are grand essentials in a school-room: let the first be freely admitted, and the second never causelessly excluded.

FIRES.

The ashes should be taken from the stoves in the morning only, leaving a layer of one inch in depth: then to proceed to build with the materials after the following manner: Place one large stick on each side; in the space between them, place the kindling wood; and above it, the small wood, somewhat cross-wise; then, set fire to the kindling, and close the stove door. See that the

draught is cleared of ashes, or other obstructions; and that the dampers are properly adjusted; (these are generally so arranged as to open the draught when the handle is parallel with the pipe). If the materials have been laid according to the foregoing directions, the combustion will be free. Should the temperature of the room be as low as 40°, fill the stove with wood. Under ordinary circumstances, in thirty-five minutes the temperature will be raised to 60 degrees,—at which point it should certainly be, at the time of opening school; when the stove may be supplied with one or two large sticks. At all times, before supplying wood, draw forward the brands and coals with the fire-hook. If there should be too much fire, open the stove door, and if necessary, turn the damper,—or, what may be better for economy, effectually close the draft at the stove door with ashes. By attention to all these directions,* the temperature may be maintained, the wood entirely consumed, and the thermometer stand at 60 degrees, at the close of the school; which is desirable in cold weather, so as not to subject the pupils to too sudden a change of temperature on going into the open air. The evaporating pan should be kept *clean*, and filled with water when in use. In damp rooms it is not needed,—nor in damp weather:—but it should be emptied, and wiped dry, before it is set aside.

DUSTING AND SWEEPING.

For a large room, or one department of a Public School building, six brooms will be found sufficient to be in use. When half worn, they will serve for sweeping the yard; and when well worn down in that service, will still be useful for scrubbing, with water or sand; and, if properly used by the sweepers, will be evenly worn to the last. Before sweeping, pull down the upper sashes, and raise the under ones. Let the sweepers be arranged, one to each passage between the desks,—and, beginning at the windward side, sweep the dirt before them, till it is carried forward to the opposite side of the room. The broom should rest square on the floor, and, with the motion used in raking hay, should be drawn towards the sweeper, without flirting it outwards, or upwards, which raises unnecessary dust, and wears the broom irregularly. The dirt, when taken up, should be carried into the *middle of the street*. The dusting is to be done in the same regular manner, allowing a suitable interval after sweeping. If at noon, dusting should be done shortly before school time; if at night, dust the next morning. In out-door sweeping, the same rule is to be followed—the sweepers going in ranks, and sweeping from the windward. Let the scrubbing be done by a similar method. When once acquainted with these methodical plans, the cleaners will do the work, not only more effectually, but with more satisfaction and ease to themselves—and being a part of domestic economy, it will be, so far, an advantage to understand how to do it well.

Although not strictly within the design of this work, but as closely connected with habits of neatness and order, we insert from the Manual quoted above, the following directions for delivering, holding, and returning a book.

The Manual is soon to be enlarged, and well deserves a place in every teacher's library, although it has special reference to the organization and system of instruction adopted in the schools of the Public School Society.

* From a return recently made out respecting the quantity and cost of fuel used in the different schools of the Public School Society. It appears that the average cost of wood for a house like No. 17, (plans and description of which may be seen on p. 100,) having 13 stoves, including cartage, sawing, carrying in and piling, is \$160. The lowest cost is \$141, and the highest, \$200. In a Primary house, (like that described on page 103,) having four stoves, the average cost is \$33; the highest being \$40, and the lowest \$25. The difference in the cost is mainly to be attributed to the difference in the care and oversight of the fire by the teacher.

With a view of correcting the evil, the committee having charge of this business have prepared a table which exhibits at one view the quantity of wood furnished to each school, so as to enable every teacher to compare himself with every other in this particular.

The cost of heating a Primary building of the same size, by wood in a furnace, is \$75, and of Ward school building, of the same size as No. 17, by coal in a furnace, is \$200.

BOOK MANUAL.

1. 2. 3. 4.

The pupil should stand erect,—his heels near together,—toes turned out,—and his eyes directed to the face of the person speaking to him.

FIGURE ONE represents the Book Monitor with a pile of books across his left arm, with the backs from him, and with the top of the page to the right hand.

FIGURE TWO represents the Book Monitor, with the right hand hands the book to the Pupil, who receives it in his right hand, with the back of the book to the left; and then passes it into the left hand, where it is held with the back upwards, and with the thumb extended at an angle of forty-five degrees with the edge of the book (as in figure 2,) until a further order is given.

FIGURE THREE—When the page is given out, the book is turned by the thumb on the side ; and, while held with both hands, is turned with the back downwards, with the thumbs meeting across the leaves, at a point judged to be nearest the place to be found. On opening the book, the left hand slides down to the bottom, and thence to the middle, where the thumb and little finger are made to press on the two opposite pages. If the Pupil should have thus lit upon the page sought for, he lets fall the right hand by the side, and his position is that of Fig. 3.

FIGURE FOUR—But, if he has opened short of the page required, the thumb of the right hand is to be placed near the upper corner of the page, as seen in Fig. 4 ; while the forefinger lifts the leaves to bring into view the number of the page. If he finds that he has not raised enough, the forefinger and thumb hold those already raised, while the second finger lifts the leaves, and brings them within the grasp of the thumb and finger. When the page required is found, all the fingers are to be passed under the leaves, and the whole turned at once. Should the Pupil, on the contrary, have opened too far, and be obliged to turn back, he places the right thumb, in like manner, on the left-hand page, and the leaves are lifted as before described.

FIGURE FIVE—Should the book be old, or so large as to be wearisome to hold, the right hand may sustain the left, as seen in Fig. 5.

FIGURE SIX and SEVEN—While reading, as the eye rises to the top of the right-hand page, the right hand is brought to the position seen in Fig. 4 ; and, with the forefinger under the leaf, the hand is slid down to the lower corner, and retained there during the reading of this page, as seen in Fig. 6. This also is the position in which the book is to be held when about to be closed ; in doing which, the left hand, being carried up to the side, supports the book firmly and unmoved, while the right hand turns the part it supports over on the left thumb, as seen in Fig. 7. The thumb will then be drawn out from between the leaves, and placed on the cover ; when the right hand will fall by the side, as seen in Fig. 2.

FIGURE EIGHT—But, if the reading has ended, the right hand retains the book, and the left hand falls by the side, as seen in Fig. 8. The book will now be in a position to be handed to the Book Monitor ; who receives it in his right hand, and places it on his left arm, with the back towards his body. The books are now in the most suitable situation for being passed to the shelves or drawers, where, without being crowded, they should be placed with uniformity and care.

In conclusion, it may be proper to remark, that however trivial these minute directions may appear to some minds, it will be found on experience, that books thus treated, may be made to last double the time that they will do, under the usual management in schools. Nor is the attainment of a correct and graceful mode of handling a book, the only benefit received by the pupil. The use of this manual is calculated to beget a love of *order* and *propriety*, and disposes him more readily to adopt the habit generally, of doing things in a methodical and systematic manner.

REGULATIONS OF CHAUNCY-HALL SCHOOL, BOSTON.

The following Regulations of one of the best conducted Private Schools for Boys in New England, will furnish useful hints to teachers in framing regulations for their own schools, especially in reference to the good behavior of the pupils, and to the care of the school-room, furniture, &c.

REQUISITION.

Boys are required to be punctual at school.

To scrape their feet on the scraper, and to wipe them on every mat they pass over on their way to the hall.

To hang their hats, caps, coats, &c., on the hooks appropriated to them respectively, by loops prepared for the purpose.

To bow gracefully and respectfully on entering and leaving the hall, and any recitation room when a teacher is present.

To take their places on entering the hall.

To make no unnecessary noise within the walls of the building, at any time of night or day.

To keep their persons, clothes, and shoes clean.

To carry and bring their books for study, in a satchel.

To quit the neighborhood of the school in a quiet and orderly manner, immediately after dismissal.

To bring notes for absence, dated, and signed by persons authorized to do so, and stating the duration of the absence; also, notes for tardiness, and for occasions when pupils are wanted at home before the regular hour of dismissal.

To study lessons at home, except when inconvenient to the family—in such cases to bring a certificate of the fact in writing.

To present a pen by the feather end; a knife, by its handle; a book, the right side upward to be read by the person receiving it.

To bow on presenting or receiving any thing.

To stand while speaking to a teacher.

To keep all books clean, and the contents of desks neatly arranged.

To deposite in desks all books (except writing books,) slates, pencils, rulers, &c., before dismissal.

To give notice through the school Post Office, of all books, slates, &c., missing.

To pick up hats, caps, coats, pens, slips, books, &c., found on the floor, and put them in their appropriate places.

To replace lost keys, books, &c., belonging to the school, and make good all damage done by them.

To write all requests on their slates, and wait until called.

To close desks and fasten them before quitting school for the session.

To raise the hand as a request to speak across the hall or any recitation room.

To show two fingers when a pen is wanted.

To put all refuse paper, stumps of pens, &c., in the dust box.

To be accountable for the condition of the floor nearest their own seats.

To fill all vacant time with ciphering, as a general occupation; and to give notice to the teacher, before dismissal, in case of omitting the exercise wholly on any day.

To be particularly vigilant, when no teacher is in the hall.

To promote as far as possible, the happiness, comfort, and improvement of others.

To follow every class-mate while reading, and correct all errors discovered in pronunciation, emphasis, or inflection.

To point the fore finger of the left hand, at each letter or figure of the slip or copy, while writing, and the feather of the pen towards the right shoulder.

To keep the writing book square in front.

To rest the body on the left arm, while spelling, and keep the eye directed towards their own slates.

To sit erectly against the back of the chairs, during the singing lessons, and to direct their attention to the instructor.

Transferrers to show reports finished as early in the week as 3 o'clock on Tuesday, P. M.

PROHIBITIONS.

Boys are forbidden to buy or sell, borrow or lend, give, take, or exchange, any thing, except fruit or other eatables, without the teacher's permission.

To read any book in school except such as contain the reading lesson of his class.

To have in his possession at school any book without the teacher's knowledge.

To throw pens, paper, or any thing whatever on the floor, or out at a window or door.

To go out to play with his class when he has had a *deviation*.

To spit on the floor.

To climb on any fence, railing, ladder, &c., about the school-house.

To scrawl on, blot, or mark slips.

To mark, cut, scratch, chalk, or otherwise disfigure, injure, or defile, any portion of the building or any thing connected with it.

To take out an inkstand, meddle with the contents of another's desk, or unnecessarily open or shut his own.

To write without using a card and wiper.

To quit school without having finished his copy.

To use a knife, except on the conditions prescribed.

To remove class lists from their depositories.

To meddle with ink unnecessarily.

To study *home* lessons in school hours.

To leave the hall at any time without leave.

To pass noisily, or upon the run, from one room to another, or through the entries.

To visit the office, furnace room, or any closet or teacher's room, except in class, without a written *permit*.

To play at *paw paw* any where, or any game within the building.

To play in the play-ground before school.

To leave whittlings or other rubbish in the play-ground, on the side-walk, or around the building.

To go out of the play-ground in school hours.

To carry out his pen on his ear.

To use any profane or indelicate language.

To nick-name any person.

To press his knees, in sitting, against a form.

To leave his seat for any purpose, but to receive class instruction.

To go home, when deficient, without having answered to his name.

To indulge in eating or drinking in school.

To go out in class, after having been out singly; or going out singly, to linger below to play.

To waste school hours by unnecessary talking, laughing, playing, idling, standing up, turning round, teasing, or otherwise calling off the attention of another boy.

To throw stones, snow-balls, or other missiles about the neighborhood of the school.

To bring bats, *hockey* sticks, bows and arrows, or other dangerous play-things to school.

To visit a privy in company with any one.

To strike, kick, push, or otherwise annoy his associates or others.

In fine, to do any thing that the law of love forbids—that law which requires us To do to others as we would think it right that they should do to us.

These regulations are not stated according to their relative importance, but as they have been adopted or called to mind. They are intended to meet general circumstances, but may be waived in cases of necessity, by special permission, obtained in the prescribed mode.

In a Lecture on Courtesy, delivered before the American Institute of Instruction at Boston, in August, 1840, Mr. Thayer, the Principal of the Chauncey Hall School, introduced the above regulations as the topics of

his discourse. We extract portions of this admirable lecture, which may be found entire in the annual volume of the American Institute, published in 1842, and in the Massachusetts Common School Journal, Vol. II, for 1840.

Scraping the feet at the door, and wiping them on the mats. This should be insisted on as one of the most obvious items in the code of cleanliness. It is not only indispensable to the decent *appearance* of a school room, but, if neglected, a large quantity of soil is carried in on the feet, which, in the course of the day, is ground to powder, and a liberal portion inhaled at the nostrils, and otherwise deposited in the system, to its serious detriment. Besides, if the habit of neglecting this at school is indulged, it is practiced elsewhere; and the child, entering whatever place he may, shop, store, kitchen, or drawing room, carries along with him his usual complement of mud and dirt; and the unscraped and unwiped feet are welcome nowhere, among persons a single grade above the quadruped race.

I may be told, it is a matter little attended to by many adult persons of both sexes. To which I would reply, in the language of Polonius,

—— “ ’Tis true—’t is pty ;
And pty ’t is—’t is true.”

But this, instead of being an argument in favor of the non-observance of the wholesome rule in our schools, only points more emphatically to the duty of teachers in relation to it; for when, unless during the school-days, are such habits to be corrected, and better ones established?

I am fully aware of the difficulty of carrying rules like this into execution, even among children of double the age of those that form the schools of some who hear me; and do not forget how much this difficulty is increased by the tender age, and consequently greater thoughtlessness, of most of the pupils of the schools usually taught by females; but still, much may be done by proclaiming the rule, and placing at the school entrance one of the elder scholars, to remind the others of it, and see that it is observed, until the cleanly *habit* be established.

In the school above alluded to, the rule has grown into so general observance, that the discovery of mud on the stairs or entry leads immediately to the inquiry, whether any *stranger* has been in. For, though few carry the habit with them, all are so trained by *daily drilling*, that it soon becomes as difficult to *neglect* it, as it was at first to regard it.

Hanging up on the hooks, caps, outer garments, &c., by loops. It is not every school that is provided with hooks or pegs for children’s caps, garments, &c. All, however, *should* be so provided with as much certainty as seats are furnished to sit upon. It not only encourages the parents to send the children in comfortable trim, but induces the children to take better care of their things, especially if a particular hook or peg be assigned to each individual pupil. It is one step in the system of *order*, so essential to the well-being of those destined to live among fellow-men. If dependent on the attention of mothers at home, I am aware that many children would often be destitute of the loops spoken of; but the children themselves could supply these, under the teacher’s supervision; for I understand the use of the needle is taught, in many schools, to the younger pupils of both sexes, and has been found a very satisfactory mode of filling up time, which, among the junior classes, would otherwise be devoted to idleness.

The next in order is, on keeping clean the person, clothes, and shoes. This, I am aware, must cost the teacher a great deal of labor to enforce; for if sent from home in a clean condition, the chances are more than two to one, that, on reaching school, a new ablution will be necessary. And in how many families this business of ablution is rarely attended to at all, with any fidelity; and as to clean clothes and shoes, if insisted on, the answer might be in some such *pleasant* and laconic language as this: “He ought to be thankful that he can get *any* clothes, without all this fuss, as if he were dressing for a wedding or a coronation!” Still, the rule is a *good* one, and should be enforced, as far as practicable. *Water* can at least be had; and if a child seems a stranger to its application, one or two of the elder scholars should be sent out, as is the practice in some European schools, to introduce it to him, and aid him in using it. And if you can arouse him to feel some pride in keeping his dress and person clean,

and his shoes well polished, or at least, in keeping them *free of mud*, you teach him a lesson of self-respect, that may prove his temporal salvation, and bring him to be, when out of school, instead of the squalid vagrant, a companion of pilferers and refugees from justice, the incipient worthy member of society, and perhaps a benefactor of his race. It is amazing to reflect how very slight a circumstance in the life of a human being, in the early stages, sometimes casts him on that tide, which leads to glory or to infamy!

Some one of note has said, that "he considers cleanliness as next to godliness;" and I have been accustomed to look upon one, thoroughly clean in the outward man, as necessarily possessing a clean heart, a pure spirit. Whether it may be adopted as a rule of judgment or not, need not now be decided. The claims of cleanliness are, without considering the deduction as infallible, too commanding to be resisted, and should ever be maintained.

The fourth relates to quitting the neighborhood of the school, on being dismissed. This is desirable for the safety of the children; it removes them to some extent, from temptation, and aids in the fulfillment of the reasonable expectations of parents, that their children will be at home at the appointed hour. It is a practical lesson in punctuality, which, as the young come into life, will be found of great service to them. It may be ranked with behavior, and considered as among those things which constitute the character of a good child. It is especially due to the families residing in the vicinity of the school. Do what you may to prevent annoyance, it is scarcely possible for a large school to be an agreeable neighbor to families within its hearing. They are subject to its petty disturbances, in all states of health and sickness, in trouble and in joy; and are surely entitled to the relief afforded by dismissal and sending the children to their homes. Shouting, screaming, and yelling, should be prohibited, and the children directed to go away in a quiet and orderly manner. Surely, every principle of courtesy, of kindness, and good neighborhood, demands it, and should not demand in vain. Who has not waited with the operations of some of the senses suspended, for the periodical abatement of an intolerable nuisance, and *felt*, in due time, all the joy of the anticipated relief?

"Every boy to be accountable for the condition of the floor nearest his seat;" that is, he is not to allow any thing, whether valuable or not, to lie on the floor, and, consequently, every thing contemplated in the preceding rule, as far as any individual's vicinity is concerned, is taken care of, and all worthless articles likewise removed. This making committee-men of all the pupils must have a very good effect on the condition of the school room, and promote that neatness and order, which are above recommended.

The next rule requires the pupils to be particularly quiet and diligent, when the teacher is called out of the room. This I regard as of very great consequence; for it involves a sentiment of magnanimity, which it should be the aim of all guardians of the young to implant, to develop, and to cherish. Children often infringe school regulations, and much is to be overlooked in them, especially when at a very tender age. Their little minds are scarcely able to entertain, for a long time together, the influence of many rules, except under the excitement of great hope or fear; and when the teacher is *present*, they often unconsciously offend, and should be judged with clemency; but when left as their own keepers, they should be early made to understand how discourteous, how dishonorable, how base, it is to transgress the laws of the school. Each should vie with each in good example, and thus convince the instructor, that confidence reposed in them can never be abused.

The last item, under the head of Requisitions, is this: "To promote, as far as possible, the happiness, comfort, and improvement, of others." If to the few exclusively moral and religious obligations, those of *courtesy* be added, this requisition cannot fail of being observed. I say, exclusively or *strictly* moral, because the notion of courtesy hardly enters the mind, when we speak of *moral* conduct; and yet, in nearly all the minor points, and in most which affect the happiness of others, in our ordinary intercourse with them, apart from the transactions of business, it is *courtesy* that influences us most. It may be denominated the *benevolence of behavior*. Aware I am that a hypocrite may be courteous; and hypocrisy in a child is inexpressibly loathsome. But hypocrisy is not a *necessary* attendant on courtesy. One may be as courteous as Lafayette, and yet as pure and upright as Washington. If, then, school-boys are kind-hearted

and friendly to their mates, and evince it towards them in their manners, they will, by their example as well as by their words, fulfill the injunction of the rule.

The "*Prohibitions*" are in the same spirit as the *requisitions*, and seem to be much the same in substance, although thrown into a negative form of speech. The first is in these words: "No boy to throw pens, paper, or any thing whatever, on the floor, or out at a window or door." This refers to a *voluntary* act of the pupil,—the rule requiring boys to pick up whatever is found on the floor to those accidental scatterings, for which one would not be culpable. The prohibition is founded on that necessity for order and neatness, which must ever be maintained in a well-conducted institution, to whatever object, worthy of attention, it may be devoted. And this is urged thus repeatedly, because of the ineffable importance of *first s'eps*. *BEGIN RIGHT*, should be the motto and rallying word of every nursery and every school.

Spitting on the floor. This topic I would willingly avoid, but fidelity to my charge forbids it. The *practice*, disgusting as it is, is too prevalent in many of the families that furnish pupils for your schools, to be overlooked, or winked out of sight; and if the children could carry home new notions in regard to it, I am sure you would have furnished a good lesson to their parents.

The habits of large portions of society demand a reform. It is futile to expect any general amendment in those who have grown old in given practices; but with the children, those whose habits are, to a great extent, yet unformed, much may be done. And although the counteracting influences of home militate against your wholesome requisitions, happy is it for us, that a goodly portion of New England respect for teachers still remains, to give authority and weight to your well-founded and reasonable rules. In many, if not in most, families, of our own countrymen, the fact that the 'school-ma'am' said so, is sufficient to make the rule promulgated binding on the parents; the mother, especially, will exert her authority and influence on the teacher's side; and if the teacher possesses the qualities of judgment, discretion, a proper consideration for the circumstances of the families to which her children belong, to guide her in the adoption of her regulations, she will be able to exert a power for good, within the sphere of her daily duties, which will continue to be felt and acknowledged, long after she shall have rendered her final account.

Marking, cutting, scratching, chalking, on the school-house, fence, walls, &c., are forbidden, as connected with much that is low, corrupting, and injurious to the property and rights of others. They are the beginnings in that course of debasing follies and vices, for which the idle, the ignorant, and profane, are most remarkable; the first steps in that course of degradation and impurity, by which the community is disgraced, and the streams of social intercourse polluted. You mark the track of its subjects as you would the trail of a savage marauding party, by its foul deeds and revolting exploits; as you would the path of the boa constrictor, in its *filthy slime*, which tells that man's deadly enemy is abroad. And *we* are called on, by every consideration of duty, to ourselves, to our offspring, and to our race, to *arm* against this tremendous evil, this spiritual *bobon upas*, which threatens so wide-spread a moral death.

We cannot escape the evidences of this, which assail us on every hand, sometimes on the very walls of our school-houses and churches; but especially in places removed from *public* view, where the most shocking obscenity of language is displayed, to poison the youthful mind, illustrated by emblems, which, in the words of one who deeply mourns with us over the existence of this monstrous evil, this desolating curse, "*would make a heathen blush!*" These frightful assaults on decency demand reform. The deep, low murmur of insulted humanity will, I doubt not, unless this evil be checked, ascend to the tribunal of Eternal Purity, and invoke the malediction of our Judge, which may yet be displayed in the blasting of our fair land, like another Sodom! To avert so deplorable a catastrophe, let the thousands of the good and virtuous in your midst, formed into one indomitable phalanx, take the noble stand which belongs to them, and never abandon it, till the enemy be forever vanquished; forever banished from the now polluted, but ever to be cherished, land of the Pilgrims!

By these practices, the mind acquires such a hankering after, and morbid relish for mischief, that no tree, or shrubbery, or flowers, or public embellishments, or exhibitions of art or taste, however beautiful or expensive, are sacred from the marring or destructive touch. A sensibility to the beautiful needs to be cultivated among us; and may easily be done with the young, if a proper

and sincere value be placed upon it by ourselves, and the children see that our admiration is a reality. It exists much more generally in continental Europe, than in our own country. There, the decorations of public walks, parks, and gardens; the galleries of the arts, and the magnificent structures which adorn their cities, are looked at, enjoyed, admired, by all classes; and rarely, indeed, is the Vandal hand of mischief or destruction found to desecrate these monuments of a nation's refinement. But how is it with us? No sooner has the artist given the last touch to the fluted column, than some barbarian urchin chips off a wedge of it, in wanton sport. How often is our indignation excited by the painter's boy, who, as he passes the newly-erected dwelling or recently-painted wall, daubs it with his black paint-brush, for yards in length, as he saunters heedlessly along. And what more common, in almost all public buildings, in cupolas, observatories, &c., especially, for persons, apprehensive of being forgotten by posterity, than to cut out their names or their initials, as if this were their only road to immortality!

The use of knives is the thing next prohibited. In mere *primary* schools, this rule, and the one last mentioned, would find, perhaps, little to do. Some, however, there are, I doubt not, even in such schools, who suffer from the too free use of knives, as their forms, desks, or benches, could testify. Nothing is more fascinating to a boy than a knife. And what pleasure can there be in possessing a knife, if one may not use it? Hence the trouble occasioned by the instrument. He early learns in imitation of his *elders* if not his *bettors*, that wood was made to be cut, and that the mission of a knife is, to do the work.

This topic can hardly be thought out of place, by those who will look into the recitation-rooms of almost any of our colleges, where many a dunce, unworthy of any *degree*, soon, by his dexterity in this department, lays claim to that of master of the art,—of *hacking*; “and has his claim allowed.”

I have already adverted to the *whittling* propensities of our people; but, with your permission, I will add a remark or two, with a view to placing this national peculiarity in a stronger light. So proverbial have we become, among foreigners, in this respect, that, if a Yankee is to be represented on the stage, you find him with a jackknife in one hand, and in the other a huge bit of pine timber, becoming every moment smaller, by his diligent handiwork. If he is talking, arguing, or, more appropriately, if he is driving a bargain, you find him plying this, his wonted trade, with all the energy and dexterity of a beaver; and, as it was once said of an English advocate, that he could never plead, without a piece of packthread in his hands, so the Yankee would lose half his thrift, unless the knife and wood were concomitants of his chaffering. But the habit is of evil tendency, and ought to be checked. He indulges in it without discrimination, upon whatever is cut-able; and, worse than the white ant, which saws down and carries away whole human habitations, when they have become deserted, the whittling Yankee would hack your dwelling in present occupation, until he rendered you houseless. Let the mischief be checked betimes; do it at school; showing, at the same time, the uselessness, the folly, and the annoying nature, of the habit. It is not merely at home, among our own people, that it is practiced by us; but we carry it with us wherever we go, and, even among strangers, establish our New England identity by it.

The *spirit* of the school rules at which we have glanced, should be carried into every family. It is not enough to present the summary at which we have arrived; we should also insist on minor particulars, by words and actions, not at school only, but *at home*, where great familiarity produces influences unfavorable to the exercise of courtesy,—such as the closing of all doors, especially in cold weather; the doing of it gently, without *slamming*; moving quietly over the floor; abstaining from shouting, whistling, boisterous plays, wearing the hat in the house, &c. Just in proportion as such habits can be secured by *your* labors, will you bring down upon your heads the blessing of mothers, worn by care, by sickness, and the rudeness of their offspring. Powerless themselves, to produce a reformation, their gratitude to you will be sincere and heartfelt.

Children should be taught to take leave of their parents and friends, on going to school, and to offer the friendly salute and kind inquiry, on returning home. Nothing tends more to strengthen the silken cords of family affection, than these little acts of courtesy; and their influence on the observer is highly favorable to benevolent feeling. If these points are attended to in our families, they will not fail of being carried into company, where they are always a coin of sterling value.

DEDICATORY EXERCISES.

The opening of a new school-house is an occasion which well deserves a public and joyful commemoration. Out of it are to be the issues of life to the community in the midst of which it stands, and like the river seen in the vision of the prophet, which nourished all along its banks trees whose leaves were for the healing of the nations, the well-spring of all its influences should be a spot consecrated by religion. In prayer, and in praise to the Giver of all good, and the Author of all being,—in song, and hymn and anthem, and in addresses, from those whose position in society will command the highest respect for any object in whose behalf they may speak, and in the presence of all classes of the community, of pupils, and teachers, of fathers and mothers, of the old and young,—the school-house should be set apart to the sacred purpose of the physical, intellectual and moral culture of the children who will be gathered within its walls. We rejoice to see that these occasions are thus improved, and that so many of our most distinguished teachers, scholars and statesmen take part in the exercises. We have before us a large number of addresses, at once eloquent and practical, which have been delivered at the opening of new school-houses, and we shall select a few, not for their superiority to the rest, but as specimens of the manner in which topics appropriate to the occasion are introduced, and as fitting testimony to the importance of SCHOOL ARCHITECTURE.

SCHOOL CELEBRATION AT SALEM, MASS.

On the first of March, 1842, the occasion of occupying several new school-houses, was marked by a variety of interesting exercises, an account of which will be found in the Common School Journal for that year. We copy the addresses of Mr. George B. Emerson, and of G. F. Thayer.

Mr. Emerson said,—

“I congratulate you, my young friends, on this happy event. This pleasant day is like a smile of Heaven upon this occasion; and I believe Heaven always smiles on events like this. Many of us whom you see here have come from a distance, on the invitation of your excellent friend the Mayor, to show the interest which we feel in you, and in what has been done here for your improvement. We have taken great pleasure in looking over the buildings prepared for your use, the admirable arrangements and apparatus, so much superior to what is usually enjoyed by children in your position. We have been pleased to hear of the faithful teachers that are provided for you, and the excellent plan of your studies, and the excellent regulations.

Your fathers and friends have spared no pains to furnish you with all the best means and opportunities for learning. They now look to you to do your part. All that they have done will be of no avail, unless you are excited to exert yourselves,—to prove yourselves worthy of these great advantages.

I was gratified, in looking over the regulations, to see the course marked out for you,—to see the stress laid upon the great substantial of a good education,—to see the prominent place given to that most useful art, that

most graceful accomplishment, *reading*. You cannot, my young friends, realize the great and manifold advantages of gaining, now, in the beginning of your life, familiarly and perfectly, the single power of reading distinctly, naturally, intelligently, with taste and interest,—and of acquiring a *love* for reading. There is no situation in life, in which it will not prove to you a source of the purest pleasure and highest improvement.

For many years, and many times in a year, I have passed by the shop of a diligent, industrious mechanic, whom I have often seen busy at his trade, with his arms bare, hard at work. His industry and steadiness have been successful, and he has gained a competency. But he still remains wisely devoted to his trade. During the day, you may see him at his work, or chatting with his neighbors. At night, he sits down in his parlor, by his quiet fireside, and enjoys the company of his friends. And he has the most extraordinary collection of friends that any man in New England can boast of. William H. Prescott goes out from Boston, and talks with him about Ferdinand and Isabella. Washington Irving comes from New York, and tells him the story of the wars of Grenada, and the adventurous voyage of Columbus, or the Legend of Sleepy Hollow, or the tale of the Broken Heart. George Bancroft sits down with him, and points out on a map, the colonies and settlements of America, their circumstances and fates, and gives him the early history of liberty. Jared Sparks comes down from Cambridge, and reads to him the letters of Washington, and makes his heart glow with the heroic deeds of that god-like man for the cause of his country. Or, if he is in the mood for poetry, his neighbor Washington Allston, the great painter, steps in and tells him a story,—and nobody tells a story so well,—or repeats to him lines of poetry. Bryant comes, with his sweet wood-notes, which he learnt among the green hills of Berkshire. And Richard H. Dana, father and son, come, the one to repeat grave, heart-stirring poetry, the other to speak of his *two years before the mast*. Or, if this mechanic is in a speculative mood, Professor Hitchcock comes to talk to him of all the changes that have befallen the soil of Massachusetts, since the flood and before; or Professor Espy tries to show him how to predict a storm. Nor is his acquaintance confined to his own country. In his graver hours, he sends for Sir John Herschel from across the ocean, and he comes and sits down and discourses eloquently upon the wonders of the vast creation,—of all the worlds that are poured upon our sight by the glory of a starry night. Nor is it across the stormy ocean of blue waves alone that his friends come to visit him; but across the darker and wider ocean of time, come the wise and the good, the eloquent and the witty, and sit down by his table, and discourse with him as long as he wishes to listen. That eloquent blind old man of Scio, with beard descending to his girdle, still blind, but still eloquent, sits down with him; and, as he sang almost three thousand years ago among the Grecian isles, sings the war of Troy or the wanderings of the sage Ulysses. The poet of the human heart comes from the banks of Avon, and the poet of Paradise from his small garden-house in Westminster; Burns from his cottage on the Ayr, and Scott from his dwelling by the Tweed;—and, any time these three years past, may have been seen by his fireside a man who ought to be a hero with school-boys, for no one ever so felt for them; a man whom so many of your neighbors in Boston lately strove in vain to see,—Charles Dickens. In the midst of such friends, our friend the leather-dresser lives a happy and respected life, not less respected, and far more happy, than if an uneasy ambition had made him a representative in Congress, or a governor of a State; and the more respected and happy that he disdains not to labor daily in his honorable calling.

My young friends, this is no fancy sketch. Many who hear me know as well as I do, Thomas Dowse, the leather-dresser of Cambridgeport,

and many have seen his choice and beautiful library. But I suppose there is no one here who knows a neighbor of his, who had in his early years the same advantages, but who did not improve them ;—who never gained this love of reading, and who now, in consequence, instead of living this happy and desirable life, wastes his evenings in low company at taverns, or dozes them away by his own fire. Which of these lives will you choose to lead ? They are both before you.

Some of you, perhaps, are looking forward to the life of a farmer,—a very happy life, if it be well spent. On the southern side of a gently sloping hill in Natick, not far from the place where may be still standing the last wigwam of the tribe of Indians of that name, in a comfortable farm-house, lives a man whom I sometimes go to see. I find him with his farmer's frock on, sometimes at the plough-tail, sometimes handling the hoe or the axe ; and I never shake his hand, hardened by honorable toil, without wishing that I could harden my own poor hands by his side in the same respectable employment. I go out to look with him at trees, and to talk about them ; for he is a lover of trees, and so am I ; and he is not unwilling, when I come, to leave his work for a stroll in the woods. He long ago learnt the language of plants, and they have told him their history and their uses. He, again, is a reader, and has collected about him a set of friends, not so numerous as our friend Dowse, nor of just the same character, but a goodly number of very entertaining and instructive ones ; and he finds time every day to enjoy their company. His winter evenings he spends with them, and in repeating experiments which the chemists and philosophers have made. He leads a happy life. Time never hangs heavy on his hands. For such a man we have an involuntary respect.

On the other side of Boston, down by the coast, lived, a few years ago, a farmer of a far different character. He had been what is called fortunate in business, and had a beautiful farm and garden in the country, and a house in town. Chancing to pass by his place, some four or five years ago, I stopped to see him. And I could not but congratulate him on having so delightful a place to spend his summers in. But he frankly confessed that he was heartily tired of it, and that he longed to go back to Boston. I found that he knew nothing about his trees, of which he had many fine ones,—for it was an old place he had bought,—nor of the plants in his garden. He had no books, and no taste for them. His time hung like a burden on him. He enjoyed neither his leisure nor his wealth. It would have been a blessing to him if he could have been obliged to exchange places with his hired men, and dig in his garden for his gardener, or plough the field for his ploughman. He went from country to town and from town to country, and died, at last, weary and sick of life. Yet he was a kind man, and might have been a happy one but for a single misfortune ; he had not learned to enjoy reading. The love of reading is a blessing in any pursuit, in any course of life ;—not less to the merchant and sailor than to the mechanic and farmer. What was it but a love of reading which made of a merchant's apprentice, a man whom many of you have seen and all have heard of, the truly great and learned Bowditch ?

Our friends the young ladies may not think this which I have said exactly suited to them. But to you, my young friends, even more than to your brothers, it is important now to acquire a talent for reading well, and a taste for reading. I say *more important*, for, looking forward to the future, you will need it more than they. They are more independent of this resource. They have their shops, and farms, and counting-houses to go to. They are daily on change. They go abroad on the ocean. The sphere of woman, her place of honor, is home, her own fireside, the cares of her own family. A well-educated woman is a sun in this sphere,

shedding around her the light of intelligence, the warmth of love and happiness.

And by a well-educated woman I do not mean merely one who has acquired ancient and foreign languages, or curious or striking accomplishments. I mean a woman who, having left school with a firmly-fixed love of reading, has employed the golden leisure of her youth in reading the best English books, such as shall prepare her for her duties. All the best books ever written are in English, either original or translated; and in this richest and best literature of the world she may find enough to prepare her for all the duties and relations of life. The mere talent of reading well, simply, gracefully,—what a beautiful accomplishment it is in woman! How many weary and otherwise heavy hours have I had charmed into pleasure by this talent in a female friend. But I speak of the higher acquisition, the natural and usual consequence of this, a taste for reading. This will give a woman a world of resources.

It gives her the oracles of God. These will be ever near her;—nearest to her hand when she wakes, and last from her hand when she retires to sleep. And what stores of wisdom, for this world and for a higher, will she gain from this volume! This will enable her to form her own character and the hearts of her children. Almost every distinguished man has confessed his obligations to his mother. To her is committed the whole formation of the character,—mind, heart, and body, at the most important period of life. How necessary, then, is it that she should possess a knowledge of the laws of the body and the mind! and how can she get it but by reading? If you gain only this, what an unspeakable blessing will your education be to you!

I need not, my young friends, speak of the other acquisitions you may make,—of writing, which places friends in the remotest parts of the world side by side,—or of calculation, the very basis of justice and honesty.

The acquisitions you may make will depend chiefly on yourselves. You will find your teachers ready to lead you on to higher studies whenever you are prepared to go.

These excellent establishments are emphatically yours. They are raised for your good; and, as we your seniors pass away,—and in a few years we shall have passed,—these buildings will become your property, and your children will fill the seats you now occupy. Consider them yours, then, to enjoy and profit by, but not yours to waste. Let it be your pride to preserve them uninjured, unmarred by the mischievous knives and pencils of vulgar children. Unite for this purpose. Consider an injury done to these buildings as an injury done to yourselves.

There is another thing which will depend on you, of more importance than any I have spoken of. I mean the tone of character which shall prevail in these schools. Your teachers will be happy to treat you as high-minded and generous children. Show that you can be so treated; that you are such.

Let me congratulate you upon the happy auspices of the name of him under whom, with the zealous co-operation of enlightened and patriotic associates, this momentous change in your school system has been effected,—a name which is borne by the oldest and best school in New Hampshire, and by one of the oldest and best in Massachusetts. It will depend upon you, my friends, to make the schools of Salem, equally, or still more distinguished, among those of the State."

Mr. Thayer said,—

Children: I did not expect that I should have the privilege of addressing you, on this most joyful occasion; for it was not till I met your respected Mayor, an hour ago, at the beautiful school-house we have just

left, that I received an invitation to do so. You will not, therefore, anticipate a studied discourse, or any thing particularly interesting. Devoted, however, as my life is, and has long been, to the instruction and guidance of the young in no inconsiderable numbers, I shall, without further preface, imagine myself in the midst of my own school, and talk familiarly to you as I would, and do, to them.

And allow me to add my congratulations to those of your other friends, for the ample, beautiful, and convenient arrangements that have been made for you, in the school-houses of this city; and especially in the new one we have just examined. I can assure you, it is superior in almost every respect to any public school-house in New England, if not in the United States. It, with others in the city, has cost your fathers and friends a great deal of money, which they have cheerfully expended as a means of making you wise and good. But you have incurred a great debt to them, which you can never repay while you are children, but must endeavor to do it to your children, when you shall become men and women, and take the place of your parents in the world. But before that period, you can do something. Now, immediately on entering upon the enjoyment of the precious privileges extended to you, you can acknowledge the debt, evince the gratitude you feel, not by *words*, but *deeds*;—by, (to use an expression well understood by all children,) ‘*being good*.’ Yes,—by ‘being good and doing good;’—by obedience to parents and teachers; by kindness to brothers and sisters, and all your young friends and companions; by fidelity in duty, at home and at school; by the practice of honesty and truth at all times; by refraining from the use of profane and indecent language; by keeping the mind and heart free from every thing impure. These are the means in your own hands. Fail not to use them; and although they will in fact be merely an acknowledgment of your obligation for the boon you possess, your friends will consider themselves well repaid for all they have done for you. It is from such conduct that the teacher’s, as well as the father’s, richest reward and highest satisfaction are derived. To see the beloved objects of our care and instruction appreciating our labors, and improving in all that is good and useful, under our management, affords the greatest happiness, lightens the heavy load of toil, relieves the aching head, and revives the fainting spirit.

There is, however, one great danger to which you,—to which all the young,—are especially exposed. I mean the influence of bad example. Example is omnipotent. Its force is irresistible to most minds. We are all swayed more or less, by others. Others are swayed by us. And this process is continually going on, even though we are entirely unconscious of it ourselves. Hence we see the importance of choosing good companions, and flying from the bad. Unless this is done, it will be in vain for your friends to give you wise counsel, or for you to form good resolutions. ‘Who can touch pitch and be clean?’ You will resemble those with whom you associate. You will catch their words, their manners, their habits. Are they pure, you will be pure. Are they depraved, they will corrupt you. Be it a rule with you, then, to avoid those who are addicted to practices that you would be unwilling your most respected friends should know, and regulate your own conduct by the same standard.

I would particularly caution you against *beginnings*. It is the *first step* that is the dangerous one; since it is obvious that, if you were to ascend the highest mountain, it could only be done by a step at a time, and if the first were not taken, the summit could never be reached. But, one successfully accomplished, the next follows as a matter of course. And equally and fatally sure is the *downward* track to crime and misery! If we suffer ourselves to be drawn in *that* direction, what human power can

save us from destruction? This danger, too, is increased by the feeling of security we indulge, when we say, 'It is only a *little* thing; we shall never commit any great fault;'—not remembering that nothing stands still in life, in character, any more than in the material universe. We must be going forward or backward; up, towards improvement and glory,—or down, towards infamy and woe! Every thing accumulates, according to its kind; though it begins small, like the snowball you hold in your hand, it becomes, as you roll it on the ground before you, larger at every revolution, till, at last, it is beyond your power to move it at all.

I will illustrate this by a sad case which has recently occurred in Boston. But first, I wish to interest you in something of an agreeable nature, in connection with the faithful performance of duty.

I have spoken of some things that you should do, to show your sense of the benefits which have been conferred upon you, and I should like to dwell on each one of them separately; but I shall have time only to speak of one. It is, however, among the most important. I allude to *speaking the truth*,—the most substantial foundation of moral character. It has innumerable advantages, one of which is strikingly exhibited in the following story:—

Petrarch, an eminent Italian poet, who lived about five hundred years ago, secured the confidence and friendship of Cardinal Colonna, in whose family he resided in his youth, by his candor and strict regard to truth.

A violent quarrel had occurred in the family of this nobleman, which was carried so far, that resort was had to arms. The cardinal wished to know the foundation of the affair; and, calling all his people before him, he required each one to bind himself by a solemn oath, on the Gospels, to declare the whole truth. None were exempt. Even the cardinal's brother submitted to it. Petrarch, in his turn, presenting himself to take the oath, the cardinal closed the book, and said, '*As for you, Petrarch, your word is sufficient!*'

What more delightful reward could have been presented to the feelings of the noble youth than this, from his friend, his master, and one of the highest dignitaries of the church? Nothing but the peaceful whispers of his own conscience, or the approbation of his Maker, could have given him more heart-felt satisfaction. Who among you would not be a Petrarch? and, in this respect, which of you could not?

While, then, I would hold up for imitation this beautiful example, I would present a contrast as a warning to you.

There is now confined in the Boston jail a boy of fourteen years of age, who, for the previous six years, had been sinking deeper and deeper into vice and crime, until last October, when he was convicted, and sentenced to two years' confinement within the cold damp cell of a gloomy prison, for aggravated theft. In his own written account of his life, which I have seen, he says that he began his wretched course by playing truant from school. His second step was *lying*, to conceal it. Idle, and destitute of any fixed purpose, he fell in company with others, guilty like himself, of whom he learned to steal, and to use indecent and profane language. He sought the worst boys he could find. He became a gambler, a frequenter of the circus and the theatre, and engaged in various other corrupt and sinful practices. At length, becoming bold in his dishonesty, he robbed the post-office of letters containing very considerable sums of money, and was soon detected and condemned. If you were to visit that abode of misery, you might often see the boy's broken-hearted mother, weeping, and sobbing, and groaning, at the iron grating of his solitary cell, as if she would sink on the flinty floor, and die! 'And all this,' (to use the boy's own words,) 'comes from playing truant!'

Look, then, my young friends, on these two pictures,—both taken from life.—and tell me which you like best; and which of the two characters

you propose to imitate. Will you be young Petrarcha, or will you adopt the course of the unfortunate boy in Boston jail? They are both before you. If you would be like the former, *begin right*. Resist temptation to wrong-doing, with all your might. Let no one entice you from the way which conscience points out.

This precept is applicable to all,—to both sexes and every age. Let me, then, I pray you, when I shall inquire, hereafter, respecting the habits and characters of the children of the Public Schools of Salem, have the satisfaction to hear, that the instructions of this occasion made an impression on their minds favorable to truth and duty, which subsequent time could never efface.

DEDICATION OF THE NEW SCHOOL-HOUSE IN PAWTUCKET, OCTOBER 31, 1846

ADDRESS OF PRESIDENT WAYLAND, OF BROWN UNIVERSITY.

LADIES AND GENTLEMEN,

There is something deeply interesting, both to the philanthropist and to the political economist, in the appearance of such a village as this, the abode of wealth, civilization and refinement. We find ourselves, as we look upon it, unconsciously reverting to the period, not very remote, when this whole region was a desert. Thick forests covered all these hills, and pressed down even to the water's brink. This river rushed over its rocky bed, or tumbled down its precipitous ledges, unnoticed by the eye of civilized man. A few savages from time to time, erected their transient wigwams upon its banks, as the season of hunting or fishing attracted them, and they alone disputed the claim of the beasts of the forest to this beautiful domain. The products of all this region were a scanty and precarious pasturage for game, a few canoe loads of fish, and, it may be, a few hundred pounds of venison. Whatever else the earth produced, fell and perished ungathered. Age after age, beheld this annual waste. Here was the earth with all its capabilities. Here were the waters with all their unexpended powers. But here was no man whose intellect had been instructed in the laws of nature. Here was neither continuous industry, nor even frugal forethought. Hence there could be no progress. All things continued as they were from the beginning of the creation.

About two hundred years since, the first civilized man cast his eyes over this beautiful landscape. He brought with him the arts and the science of the older world, and a new era commenced in the history of that part of our country, since known as Rhode Island. The labors of agriculture soon began to work their magic changes. The forest was felled, the soil was tilled, and, in the place of the precarious products of the uncultivated field, rich harvests of grain waved over these plains. The beasts of the forest retired, and the animals given by the Creator to aid us in our toil, occupied their place. Instead of the graceful deer, the clumsy moose, the prowling wolf and the ravenous panther, these fields were covered with the lowing herds, the bleating sheep, the laborious ox, and the horse, in all latitudes the faithful servant of man.

This was a great and glorious transformation. From the moment that a civilized man first thrust his spade into this earth, or here yoked his oxen to the plough, the sleep of ages was broken, and the reign of progress commenced. From this moment the darkness had begun to pass away, and the sun was dispersing that night, which, since the deluge, had brooded over this land. From that auspicious beginning, all the means of happiness that the eye beholds, have proceeded. Acre after

acre has been reclaimed from barrenness. Every variety of product has been tried, in order to ascertain which would be produced by the earth most kindly. The smoky wigwam gave place to the log house, and this in turn, to the convenient farm-house, or the stately mansion. And thus another portion of the earth was added to the area of Anglo-Saxon civilization.

But still the river, to which all the distinctive prosperity of this region owes its origin, ran, as it ever had ran, to utter waste. This mighty and most productive means of wealth, remained wholly unemployed. A mine richer than that of gold, was yet unwrought. It was a mine of *mechanical power*, instead of *metallic treasure*, and let me add, a mine of incalculably greater value. At last it was discovered, that this little river, falling over its innumerable ledges, could do the labor of many thousand men. An accomplished manufacturer,* from England, whose name has made this village one of the most renowned spots in our country, came among us, and applied the power of this water-fall to the spinning and weaving of cotton. Who can measure the results of this one grand experiment? We hear of battles and sieges, of the defeat of armies, the capture of towns, the destruction of fleets; but what achievement of war was ever of such importance to a people, as that which was accomplished, when that wheel made its first revolution, and the first thread of cotton was here, in this very village, spun by water power? From this moment may be dated the commencement of general manufactures in this country, and that of cotton in particular. From that moment, every fall of water throughout our land became a most valuable possession. From that moment, this noble natural agent began, everywhere, to fabricate garments for our people. From that moment all the labor, of every age, throughout New England, could be profitably employed. From that moment it was certain that capital to any amount could readily find investment. The rich proceeds of one manufactory laid the foundations of a similar one by the side of it. As one branch of manufactures began to supply the demand of the nation, another branch was established. Thus we are every year adding millions to this form of investment, and employing additional thousands of hands in this mode of industry. We are entering into generous and successful rivalry with the nations of Europe. Already many of our cottons are preferred to theirs in the markets of the world. Soon, other branches of our manufactures will be brought to equal perfection. Nay, I anticipate the time when we, in this country, under a system of generous reciprocity, shall supply the continent and England herself with all those articles, for the fabrication of which we have special advantages.

But this chain of events by no means ceases here. Year after year every branch of manufactures is increasing its means, and distributing the proceeds of its labor over every part of our land. Wherever a fabric is sent, it is exchanged, in some form, for the productions of that region in which it is consumed. The common means for accomplishing these mutual and increasing exchanges, soon became utterly inadequate; more efficient modes of transportation must, from necessity, be invented. The business of the country could not be carried on without them. Our manufacturing prosperity, while it creates the necessity for internal improvements, also supplies the means for constructing them. The annual gains of manufacturing capital are next invested in canals and railroads, and thus the means of transporting these fabrics at the least cost, are at once

* Mr. Slater has even a higher claim to the gratitude and veneration of this country, than that which he derives from the introduction of the cotton manufacture. He established in Pawtucket the first SUNDAY SCHOOL that was ever opened in America; and for some time sustained it wholly at his own expense.

provided. Here is, then, another mode created, of advantageous investment. By means of internal improvement, the market of every producer is indefinitely extended, he also receives a fair remuneration for this very investment, by which his market is thus extended, and, at the same time, the consumer receives whatever he purchases at a cheaper rate and in greater perfection. Thus, as we always observe, under the government of God, a real benefit to one is a benefit to all. And hence we learn, that to attempt to secure exclusive advantages to ourselves, is always labor lost. Nothing can be a real benefit to us, that is not a real benefit also to our neighbors.

And the illustration of all that I have said, is manifest every where around us. We behold how every other art has clustered around the art of transforming cotton into clothing. We see how one establishment has been the seed that has produced a multitude of those that resemble it. You see how manufactures have given rise to internal improvements; how the spindle has cut through the mountains, and filled up the valleys and graded the road, and stretched from city to city the iron rail. You see how loth these inseparable friends are to be parted from each other. The region of manufactures is the region of railroads. And you perceive, as the iron road that passes through this village, pursues its way toward the west, how it winds along through the valley of the Blackstone, greeting every village and waking every hamlet to renewed activity.

All this you readily perceive. You must be astonished yourselves, when you reflect upon the amount of capital which a single life time has added to the resources of this village, and the country in its immediate vicinity. But while we exult in the large measure of prosperity with which a bountiful Providence has endowed us, it may not be uninteresting to inquire, in what ways have these blessings been improved? Has it ever occurred to you, that almost all this capital has been invested in procuring for ourselves, the means of *physical* happiness? We erect houses, and we render them spacious, warm, and commodious. We furnish them with every means of physical luxury. We spread carpets for our feet. We stretch ourselves on couches of down. We temper the atmosphere at our will. We clothe ourselves with vestments wrought in every clime, and by people of every hue and language. We vary our dress with every fashion. We load our tables with luxuries imported from the tropics or the poles; we vex sea and land for new viands to stimulate our palates, already saturated with abundance. We please ourselves with every form of equipage, and tax the ingenuity of every artisan, that we may be enabled to roll from place to place without the fatigue of motion. But why need I proceed to specify any further. We all perceive, on the least reflection, that it is in expenditures of this kind, that almost all the expenses of living are incurred.

But if this be true, must there not be some grievous error in the principles of our conduct? Can this be a wise mode of expenditure for intelligent and immortal beings? In all that I have here recited, is there any thing in which, on principle, we have excelled, (excuse the homeliness of the illustration,) the *Beaver* that once inhabited these streams? The thoughtful animal expended all the treasures of his intellect or instinct, in rendering his dwelling commodious; and he accomplished it. Have we not done precisely the same thing? Has not all the expenditure of which I have spoken, been consumed for the convenience of the physical, the perishable, the material? Might not all this have been done, had we no consciousness of an immortal spirit?

But God has made us immortal. He has given to us a spiritual existence. Each one of us possesses a priceless mind. We are endowed with reason to discover truth, imagination to form conceptions of the beautiful

and the grand, taste to delight in all that is lovely or glorious, and conscience by which we are allied to God the Father of all, and the holy and blessed throughout the universe. It is by the possession of these powers, that man claims precedence over the brute. It is by the cultivation of these, that we have become more powerful than the savage, who once dwelt where we now dwell. It is by the use of these powers, that all the wonders of art have been wrought, which we now behold around us. If such be the fact, it must certainly be true that this, the spiritual part of man, is by far the most deserving of attention, and that, in the cultivation of this portion of our nature, we can in the most appropriate manner invest our capital.

But while this is evident, does our practice correspond with these well established principles? We liberally expend our substance to preserve our bodies in health, and to cultivate in our children the full development of every power, and the outward manifestation of every grace. But do we bestow proportionate labor in developing every spiritual faculty, and protecting the immortal part from the spreading contagion of evil example, and the wasting results of evil habit? We expend whatever is necessary in furnishing our tables with every thing that may be desired for the sustentation of the body. Where is there the man among us, who would not blush to be considered an illiberal provider for the wants of his household? but is any man ashamed to confess, that he has made no provision for the spiritual appetites of his children? Who of us would permit tainted or unwholesome food to be brought into his house, or placed upon his table? and yet is not intellectual food of the most questionable character, daily read in the houses of many of our most excellent citizens? Who is ashamed to declare, that he has no library in his house, or that, he has never taken the pains to inquire whether the books that are read by his family, are useful or deleterious?

But this is not all. We know that the youthful mind is destitute of knowledge, and that it is strongly predisposed to the formation of improper habits. Every one knows that a child needs instruction, and that the labor of giving it instruction should be devolved upon those only, who are intellectually and morally qualified to impart it. The parent can rarely do this for himself. The principle of division of labor teaches us, that it can be much more successfully done by some one who will devote his whole attention to it. But, now, let us look over our own neighborhoods, and observe how very small, until quite lately, has been the amount of capital devoted to the education of our youth. Compare it with almost every other form of investment, and you at once perceive how small is its relative amount. Take, for instance, the railroad which passes within a stone's throw of the place in which we are assembled. Many of you and your fellow citizens, subscribed for its stock. You did wisely. It will, I presume, raise the value of every form of property here. Land will sell for a better price. You will thus become directly connected with the whole of the South, and with the whole of the East and West; and you can, at very little expense of transportation, exchange productions with the remotest extremities of our country. This is certainly an improvement upon your former means of communication, and you are willing to invest your capital in the effort to secure it. But suppose you had been assessed to an equal amount, in order to provide the means of education; suppose you had been called upon to subscribe the same sum in aid of an effort to give to the youth of this village the best education in New England, would you not have considered the demand excessive? Would you have believed that you could possibly have paid it? Yet, I ask, is not the education of your children as important an object as the improvement of your means of transportation? Suppose you were to unite in such an effort, would not the amount of

which I have spoken be sufficient to accomplish the result, the giving to your children the best education in New England. Is it not evident, then, that we bestow upon the means of education, an attention very much less than they deserve?

I have spoken in this manner as though I were addressing you in particular. But this is not what I intend. I speak of the amount of attention which, until lately, has been given to this subject, here in this State, and throughout New England. I know as well as you, that you have not been specially behind hand in this matter. You have always been prepared to do your part, in every effort to improve the condition of education amongst us. I have, however, alluded to these facts and have presented these parallels, that you may be enabled to judge of the degree in which we have erred, in estimating the proportion of our income which is due to the cause of education.

I greatly rejoice, however, that indications of decided improvement in this respect, are visible every where around us. In Massachusetts, for several years past, no subject has appealed with greater success to the enlightened public opinion of her citizens. One of her most gifted and eloquent sons has consecrated his life to this noble cause, and the results of his efforts have become every where apparent. Nor have we of Rhode Island been wholly wanting to ourselves in this good work. Although for many years the people were indifferent to their true interests in this respect, yet, when they came to its importance, they pursued it with a manly steadfastness and a far-seeing liberality, which would do honor to any community in our country. The school system of Providence is acknowledged to be second to none in the land, in excellence and efficiency. The people in all our districts, agricultural and manufacturing, are seeking to know the best means of promoting the thorough education of their children; they are building school-houses on the best models that can be presented to them, and are raising money, with annually increasing liberality, for the purpose of accomplishing these results most perfectly.

It gives me great pleasure, Ladies and Gentlemen of Pawtucket, to be a witness to the enlightened zeal which you have manifested on this subject. From this village, first went forth the impulse which called into existence the most important manufacturing interest in this country. It is meet that as you have taught us how to supply our external, you should teach us how to supply our internal wants. You have taught us how we may clothe our bodies, it is well that you should teach us how to cultivate, and strengthen, and ennoble our minds. You have intended to render this school-house a model for your fellow citizens throughout the State. It is a noble and patriotic emulation, and we thank you for it. We hope that every village and district in the State will imitate your example.

I am delighted to observe that, in all your arrangements, you have in this matter acted with wise and thoughtful liberality. Instead of putting your school-house out of sight, in an inconvenient and unhealthy position, you have placed it on an eminence, in a desirable locality, and have determined to surround it with ample play-grounds. The building itself is exceedingly pleasing in its external proportions, and forms one of the most agreeable ornaments of your village. You thus associate education in the mind of the young with every thing gladsome and alluring; while, at the same time, you testify to your children, the importance which you attach to their intellectual cultivation.

The apartments of your house are large and convenient. The desks are constructed upon the most improved models, and the seats seem to me durable and neat, and, at the same time, comfortable to the pupil. Every thing in the school-rooms has the air of finish and completeness. The arrangements for illustration, by the blackboards, are, and I presume

that those by every other means will be, ample. With such instructors as you have appointed, seconded by your own zealous and untiring efforts, I have no doubt that this school will be all that you desire to make it, one of the first model schools of New England.

But I perceive that your forethought has gone farther. You have determined that other habits, besides those of the intellect, shall here receive their appropriate share of attention. You have provided for each scholar an exclusive place for his own hat and outer clothing. You have furnished your apartments with convenient wash-rooms, an improvement which I do not remember to have seen in any other school-house. Thus you have made it necessary for each scholar to cultivate habits of order and cleanliness. In all these respects, I do not see how your arrangements could be better made, or how any thing else could reasonably be desired.

How delightful an object of contemplation is such a school as this, when faithfully and zealously conducted. Here the slumbering germs of intellect will be quickened into life. Here talent, that would otherwise become torpid from inaction, will be placed upon the course of indefinite improvement. Here, the rough and uncultivated, arrested by the charms of knowledge, and allured by the accents of kindness, will lay aside their harshness, and assume the manners of refinement and good breeding. From hence the lessons of knowledge and the habits of order will be carried to many a family, and they will there awaken a whole circle to a higher and purer life. In a word, take the five hundred children, whom this building will accommodate, and suppose them destitute of the knowledge, the discipline and the manners, which this school will confer; trace their course through life in all its vicissitudes, and observe the station which each of them must occupy; and then, suppose these five hundred children imbued with the knowledge which you here are prepared to give, and the habits which you intend to cultivate, and follow them through life, and observe the stations which you have qualified them to occupy; and you have the measure of good which, year after year, you are accomplishing by the establishment of these means of instruction. Look at the money that it costs. You can calculate it to a single cent, both the principal investment and the interest which it would yield. But can you estimate the intellectual service, and moral advantages which will accrue to you and your children, by this expenditure? The one is to you as the small dust of the balance. Were it all lost, you would hardly think of it. You would not think it worth while to smile at a man, who should say, Pawtucket is ruined, for it has lost a sum equal to that which all its means of education have cost. But suppose that, what that sum has purchased were lost; suppose that your schools were shut up, and your whole population consigned to ignorance; that henceforth reading, writing, and all the knowledge which they unfold, should be taught or learned here no more for ever; then would Pawtucket in reality be ruined. Every virtuous and intelligent family would flee from your border, and very soon your name would be an opprobrium to New England. I ask, then, in view of all this, is there any money which you invest, that brings you in so rich a revenue, as that which you devote to the cause of education?

But I ought to apologize for occupying so much larger a portion of your time than I intended. I must, however, even now, break off abruptly, and give place to others who are much more deserving than myself to be heard on this occasion. I will therefore add but a single suggestion. Let this effort which you have made, be but the first step in your progress. Cultivate enlarged and liberal views of your duties to the young who are coming after you, and of the means that are given you to discharge them. A place as large as this, can perfectly well provide for all its youth of both sexes, as good an education as any one can desire.

What we are capable of doing in this respect, is so little known, that any public spirited and united population, as wealthy as this, can easily place itself in the vanguard in this march of improvement. It is in your power so to cultivate the mind and manners of your children, that wherever they go, they will take precedence of those of their own age and condition. Your example would excite others to follow in your footsteps. Who can tell how widely you might bless others, while you were laboring to bless yourselves? Are you prepared to enter upon so noble a career of improvement?

REMARKS OF REV MR. OSGOOD.

Mr. Osgood, of Providence, being called upon by the Chairman of the School Committee, spoke in substance as follows:

You will agree with me, friends, in deeming it a happy circumstance, that he, whose position places him at the head of the educational interests of this State, and whose name stands among the highest in the literature of our land, has favored us with his presence upon this occasion, and borne so decided witness to the importance of a far nobler popular education. After what we have heard, we cannot but recognize the common interests of all friends of sound learning, and rank the school and the university as helpers in the same good cause.

We have met to-day to consecrate this pleasant edifice to the service of popular instruction. Solemn prayer has been offered to the throne of mercy, and honest counsel has been addressed to you. This house is now consecrated as a temple of learning. Do we feel duly the significance of these exercises? Do we realize the common responsibility that we assume by participating in them? This afternoon has been spent in mockery, unless the parties here represented entertain and carry out serious convictions of duty.

Let us feel that in consecrating this house to the purposes of education, we consecrate it to the spirit of *order*. Without good order, education cannot succeed; and surely all will allow that good order cannot exist without the aid alike of master and scholar, parent and guardian. Let the teacher have your hearty co-operation in his endeavors to regulate his school. Let him not be left at the mercy of the unreasonable, who will call every act of discipline, tyranny; or of the quarrelsome, who will resent every restraint as a personality. Encourage in yourselves and your children the idea that good order has its foundation in the very nature of things, in the plan of the creation, and the hearts of man. There is order in God's works,—in the heavens above,—on the earth beneath. We imitate the divine mind when we strive to do our work in accordance with the best rules, and submit passing impulses and little details to a common standard of right. Let the child be taught to accept this idea, and to see in the order of the school not so much the teacher's will as the law of general good. Let this idea prevail, and a new day will come over our schools. Teachers will be more careful to place their passions under due control, by looking beyond present provocations to permanent principles; and parents and children will acknowledge the justice of proper discipline, even when its penalties fall upon themselves. Consecrating this house to education, we consecrate it then to the spirit of good order.

Akin to order is the spirit of *good will*,—that love that heightens every task, and cheers every labor. Let us feel that this building is set apart as the abode of good will. In the simple beauty of its walls, and the neatness of its arrangements, we see at once that it is intended to be a pleasant place, where the young shall come rather in love than fear. Let every thing be done to carry out this idea, and remove all gloom from the work that here is to go forward. Let the voice of music be heard in the

intervals of study, and charm away weariness and discontent. Let courteous manners prevail between scholars and teachers. Let the law of love be supreme, and the good of each be regarded as the good of all. Let every thing be done to make knowledge attractive, without impairing its solidity. You have declared your principles upon this subject in the very structure of this edifice; virtually acknowledged the relation of the beautiful to the true, and applied to education that law of attraction that pervades all the plans of Divine Providence. Carry out these principles without fear and without extravagance. Let not your care be given merely to make your dwelling-houses attractive. Let there be no more school-rooms so rude and uncleanly as hardly to be fit to shelter well-bred cattle. Let children learn neatness, taste, and refinement, along with their alphabet and multiplication table. To good will, under every one of its attractive agencies, this house should be devoted.

Thus devoted, it will be a nursery of good works. *Utility* will go hand in hand with *good order* and *good will*. In this community, practical industry is the ruling power; utility is the prevailing standard. See to it that this standard is rightly adjusted, and that we do not confine our idea of usefulness to worldly or material interests. As we hear the sound of the spindle and the anvil, and see the spray of the waterfall, and the smoke of the furnace, let us rejoice at the large measure of enterprise and prosperity that have been granted us. But when we turn away from these things to look upon this house of learning, let us not think as some base souls do, that we have left utility behind, and are dealing only with what is visionary and unsubstantial. Next to the church of God, let us feel that the school-house is the most useful building in the community, and that from it should emanate the knowledge, principles, and habits that are to give life its direction and efficiency. Reckon in your estimate of the best wealth of your city, your schools, and, without them, regard all other wealth as disgraceful covetousness or mental poverty.

Let the idea of utility preside over the direction of this school, and all its studies tend not to fill the memory with loads of words, but to strengthen the mind, and invigorate and regulate the will and all the active powers.

Standing as it does in so sacred a seat of manufacturing industry, this house has a peculiar significance. Overlooking this prosperous town, it serves to express a generous creed—to say as if it were:—"We, the people of North Providence, think much of the importance of industry and wealth, but we think that some other things are of still greater importance, and however remiss in duty we may have been in time past, we mean to practice upon a more generous system, and this fair temple of learning, standing so far above the factory and workshop, is a substantial testimonial of our determination."

It is an interesting fact, that the first movement in this State in behalf of popular education was made, not by professional men, nor by merchants, nor any of the classes that might be thought, from their leisure or literature, to advocate the claims of sound learning, but by an association of mechanics and manufacturers in Providence. I read to-day, with great pleasure, the memorial which this association presented to the Legislature, in the year 1798. I honor those men for that document. But one of the original signers now survives. Who can meet that old man without respect? Who will not honor John Howland even more for taking the lead in that memorial, than for having served under Washington at Trenton, and braved death in the battles of the revolution? Peace to his sturdy heart, and many good days yet to that stout Saxon frame!

I must cease speaking with these few words as to the good order, good will and good works, to which this house of learning is devoted. May a good providence watch over it. Imagination cannot but conjecture the

various scenes of its future history—picture to herself the groups of children who shall come to enjoy its privileges, and who in due time shall leave its walls for the pursuits of maturer life. Prophecy is not our gift, except the prophecy that calculates events by purposes and principles. Let this edifice be used faithfully for true purposes and for just principles, and its future history will be a blessed volume in the annal of your town. It will tell of generations of noble men and women, who have been educated within these walls. And when this house shall have gone to dust, it will have performed a noble mission, by being the nursery of mental life that cannot die.

“Cold in the dust, the perished heart may lie,
But that which warmed it once, can never die.”

DEDICATION OF THE PUBLIC HIGH SCHOOL-HOUSE, IN CAMBRIDGE, MASS.

The edifice, which has just been erected (1848,) for the accommodation of the Public High School of the city of Cambridge, is built of brick, two stories high with a basement, and is a substantial, attractive and convenient school-house, of which the citizens of Cambridge may well feel proud. The cost, including land, furniture and apparatus, is \$13,500. The plan of the interior is substantially the same as that of the High School in Hartford.

The following account of the Dedication of this house is abridged from the Cambridge Chronicle for June 29, 1848.

The services were commenced by the chanting of the Lord's Prayer by the scholars of the school.

Alderman Whitney, in behalf of the building committee, transferred the building to the care of the School Committee, through the Mayor of the city, with an appropriate address. After a dedicatory prayer by Rev. N. Hoppin, and another chant, of selections from Proverbs, by the children, the Mayor addressed remarks to the audience upon the relation of the High School to the other grades of schools, and to the cause of education generally in the city, and on some of the conditions on which the success of this and the other schools depended. Addresses were also made by gentlemen present, in which many pleasing incidents in the history of the public schools, and of the town and city of Cambridge, were narrated, and many valuable suggestions thrown out, by which children, teachers, parents and school officers can profit. We make the following extract from the address of Rev. Mr. Stearns, Chairman of the High School Committee.

"At the time of my settlement here as a clergyman in this place, in December, 1831, there were in the town 6 school-houses, 8 school-rooms, 8 teachers and about 400 scholars.

At this time, 1848, there are 17 school-houses, 35 rooms, 44 teachers, and 2136 children.

During this time, it is true, the population has more than doubled, but the interest taken in the schools, and their progress, has much more than tripled or quadrupled.

If at that period any school committee had seriously proposed the erection of such a building as this for a High School, they would undoubtedly have been excused from public service the coming year, if not immediately sent to Charlestown as insane. But the spirit of improvement has prevailed, and now we have all needed advantages for making good scholars, who shall be an honor to their parents, and to their generation.

But, Mr. Mayor, it cannot be too deeply impressed on the minds of our youth that the *means* of education, are not education itself. We may have good school-houses, fine libraries, superior collections of philosophical apparatus, and the best of teachers, with miserable scholars. There are means of improvement in creation all around us—good influences ascend to us from the earth and come down to us from the sky. The sun is a teacher, the evening stars impart knowledge, while every flower is eloquent with wisdom. But what intelligence do all these outward instructors communicate to the ox who grazes without reflection, or to the horse who eats his provender without thanksgiving? Hardly more will books, and maps, and pleasant seats, and air-pumps, and scientific

lectures, do for a doltish mind. The outward may stimulate to improvement, but all good action springs from within. There must be in the scholar's own mind a strong desire for knowledge, a spirit aspiring to excellence, a force of moral purpose which no small difficulties can vanquish, or but little which is valuable will be accomplished.

Mr. Chairman, we have great hopes from the school now to be organized in this house,—and these teachers, and these parents, and these scholars, must see to it, that we and our fellow citizens are not disappointed.

This school is intended to carry forward and complete the education of our children—I mean complete it as far as it goes—for *education* never can be completed. It is a work which extends beyond the school-room into active life, all through time into eternity. It is the destiny of good minds to improve for ever. They will go on rising, expanding, increasing in true wisdom as the endless ages pass along, and their progress will be co-eternal with the eternity of God. We wish to begin right with the young in their earliest years, and to carry them forward in this school till they are prepared for service and usefulness in society, and the good beginnings of immortal advancement are firmly laid. We wish to attend here to the proper development of their faculties, to see that these unfold themselves in just proportions, and that our children are qualified to meet the demands of the age and devote their powers to life's best ends.

We establish this school, also, with our schools generally, as a preservative against vice. When I look round, as I do now, upon more than one hundred children fresh as a flower garden in the morning, it seems hardly in good taste, to suggest that any of them may become the victims of evil, and sink in disgrace from society. And yet, it is possible that among these young men and young women too, there may be some one or more who will live to be the objects of public indignation and of self-scorn. God forbid! But juvenile depravity has fearfully increased within a few years! And no one can tell who will be among the next victims. Mr. Chairman, I once had a dream—and it was among the most terrible dreams which ever troubled my sleeping imagination. I saw a bright and beautiful boy playing innocently upon the green, suddenly the grass began to move, the earth to undulate till it became water, and the boy went down in an instant, and nothing was left of him but three or four air bubbles on the surface. I awoke in horror, and was troubled all day by this midnight vision. I thought then, and I have ever since thought, that it was a vivid illustration of the course and end of many a youth. They sport thoughtlessly among the green and flowery fields of temptation. They begin to yield, principle gives way, and they go down and are lost as respects character for ever. We wish to render the treacherous earth under them firmer. We would change it into the hard granite of virtue, we would have them stand on the immovable rock of ages.

We hope, also, Mr. Mayor, from this school an advantage to the adult community. The benefits of an institution like this do not terminate with the children. By a reflex influence, they return to the families from which our children come. It is no unheard of thing for a rough, hard, uneducated man to be mellowed and transformed by the influences which his children and his children's children bring home from the churches and the schools. A good school does excite the adult mind; it awakens interest in education, and promotes improvement. If this school fulfills our expectations, it will be to the community a moral and intellectual sun, throwing light into every dwelling.

We believe also that it will act happily upon our younger schools. It will be to them an object of hope and honorable ambition. They will take their examples from it—and our little children from the first will be

aspiring and reaching towards it. But I must stop, for I am impatient, as doubtless you and this assembly must be, for the instructions which are to fall from more eloquent lips than mine. Children, consider how much is depending upon you. Be determined to fix down to hard study, *to do right*; and on the first principle of all true wisdom, "Remember now thy Creator in the days of thy youth."

After Mr. Stearns had concluded, a hymn was sung. The Mayor then stated that the President of Harvard College was present, and that he hoped he would favor the company with some remarks."

President Everett accepted the invitation, and responded to the call as follows:—

May it please your Honor:—

Connected as I am with another place of education, of a kind which is commonly regarded as of a higher order, it is precisely in that connection, that I learn to feel and appreciate the importance of good schools. I am not so ignorant of the history of our fathers, as not to know, that the spirit, which founded and fostered Harvard College, is the spirit which has founded and upheld and will continue to support and cherish the schools of New England. I know well, sir, that Universities and Colleges can neither flourish nor even stand alone. You might as well attempt to build your second and third stories in the air, without a first floor or a basement, as to have collegiate institutions without good schools for preparatory education, and for the diffusion of general information throughout the community. If the day should ever come, which I do not fear in our beloved country, when this general education shall be neglected and these preparatory institutions allowed to perish;—if the day should ever come (of which I have no apprehension) when the schools of New England shall go down, depend upon it, sir, the colleges will go with them. It will be with them, as it was with the granite warehouses, the day before yesterday in Federal street, in Boston; if the piers at the foundation give way, the upper stories will come down in one undistinguished ruin.

I anticipate no such disaster, Mr. Mayor, though it must be admitted that we live in an age of revolutions, of which every steamer brings us some fresh and astonishing account. But our revolutions are of a more auspicious character, and it occurred to me as I was coming down with your worthy associate (Mr. Whitney,) and your respected predecessor (Mr. Green,) to whom we have just listened with so much pleasure, that we were traversing a region, in which a more important revolution commenced no very long time since, and is still in progress,—far more important for us and our children,—than any of those which have lately convulsed the continent of Europe. I do not now refer to the great political and historical events of which this neighborhood was the theatre; of which the monuments are in sight from these windows, but to a revolution quiet and silent in its origin and progress, unostentatious in outward manifestations, but imparting greater change and warranting brighter hopes for most of those who hear me,—for our young friends before us,—than any of the most startling events that stare upon us in capitals in the columns of the newspapers, after every arrival from Europe. The Reverend Mr. Stearns has beautifully sketched some of the most important features of this peaceful revolution.

When I entered college, Mr. Mayor, (and I believe I shall not tell the audience quite how many years ago that is; you can do it, sir, but I will thank you not to,) there were a few straggling houses, shops, and taverns along the Main street at Cambridgeport. All back of this street to the north, and I believe almost all south of it to the river,—the entire district,

in the centre of which we are now assembled, was in a state of nature, pretty equally divided between barren pasturage, salt-marsh, and what I must admit had no mean attraction for us freshmen, whortleberry swamp. Not one of the high roads had been cut, which now traverse the plain between Main street and the old road to Charlestown. East Cambridge did not exist even in the surveyor's imagination. There was not a church nor a public school east of Dr. Holmes' and Old Cambridge Common, and if any one had prophesied that within forty years a population like this would cover the soil,—with its streets and houses, and gardens, its numerous school-houses and churches, its conservatories breathing all the sweets of the tropics, its private libraries equal to the choicest in the land, and all the other appendages of a high civilization, he would have been set down as a visionary indeed. But this change, this revolution has taken place even within the life time of the venerable lady (Mrs. Merriam) introduced to us in such a pleasing manner by Mr. Stearns; and we are assembled this morning to take a respectful notice of what may be called its crowning incident, the opening of a High School in that primitive whortleberry swamp. I believe I do not over-state matters when I say, that no more important event than this is likely to occur, in the course of the lives of many of those here assembled. As far as our interests are concerned, all the revolutions in Europe multiplied tenfold are nothing to it. No, sir, not if the north were again to pour forth its myriads on central and southern Europe and break up the existing governments and states into one general wreck, it would not be an article of intelligence at all so important to us as the opening of a new school. No, my young friends, this is a day which may give an auspicious turn to your whole career in life; may affect your best interests not merely for time but for eternity.

There is certainly nothing in which the rapid progress of the country is more distinctly marked than its schools. It is not merely their multiplication in numbers, but their improvement as places of education. A school forty years ago was a very different affair from what it is now. The meaning of the word is changed. A little reading, writing, and ciphering, a very little grammar; and for those destined for college, a little Latin and Greek, very indifferently taught, were all we got at a common town school in my day. The range was narrow; the instruction superficial. In our modern school system, taking it as a whole composed of its several parts in due gradation,—viz. the primary, the district, and the High School,—the fortunate pupil not only enjoys a very thorough course of instruction in the elementary branches, but gets a good foundation in French, a good preparation for college, if he desires it, according to the present advanced standard of requirement; a general acquaintance with the applied mathematics, the elements of natural philosophy, some suitable information as to the form of government and political system under which we live, and no inconsiderable practice in the noble arts of writing and speaking our mother tongue.

It might seem, at first, that this is too wide a circle for a school. But the experience of our well conducted schools has abundantly shown that it is not too extensive. With faithful and competent teachers and willing and hearty learners, all the branches I have named and others I have passed over can be attended to with advantage, between the ages of four and sixteen.

Such being the case, our School Committees have done no more than their duty, in prescribing this extensive course and furnishing to master and pupils the means of pursuing it. I cannot tell you, sir, how much I have been gratified at hastily looking into the alcove behind us. As I stepped into it this morning, Mr. Smith, the intelligent master of the school, pointed out to me the beautiful electrical machine behind the door

with the just remark that my venerable predecessor, President Dunster, would not have known what it was. No, sir, nor would the most eminent philosopher in the world before the time of Franklin. Lord Bacon would not have known what it was, nor Sir Isaac Newton. Mr. Smith reminded me of the notion of Cotton Mather (one of the most learned men of his day,) that lightning proceeded from the Prince of the Power of the Air, by which he accounted for the fact that it was so apt to strike the spires of churches. Cotton Mather would have come nearer the truth, if he had called it a shining manifestation of the power and skill, by which the Great Author of the Universe works out some of the mighty miracles of creation and nature. And only think, sir, that these newly discovered mysteries of the material world, unknown to the profoundest sages of elder days, are so effectually brought down to the reach of common schools in our day, that these young friends, before they are finally dismissed from these walls, will be made acquainted with not a few of the wonderful properties of the subtle element, evolved and condensed by that machine, and which recent science has taught to be but different forms of one principle, whether it flame across the heavens in the midnight storm, or guide the mariner across the pathless ocean;—or leap from city to city across the continent as swiftly as the thought of which it is the vehicle; and which I almost venture to predict, before some here present shall taste of death, will, by some still more sublime generalization, be identified with the yet hidden principle which thrills through the nerves of animated beings, and binds life to matter, by the ties of sensation.

But while you do well, sir, in your High School to make provision for these advanced studies, I know that as long as it remains under your instruction, the plain elementary branches will not be undervalued. There is perhaps a tendency in that direction in some of our modern schools: I venture to hope it will not be encouraged here. I know it is not to be the province of this school to teach the elements; but I am sure you will show that you entertain sound views of their importance. I hold, sir, that to read the English language well, that is with intelligence, feeling, spirit, and effect;—to write with dispatch, a neat, handsome, legible hand, (for it is after all, a great object in writing to have others able to read what you write,) and to be master of the four rules of arithmetic, so as to dispose at once with accuracy of every question of figures which comes up in practical life:—I say I call this a good education; and if you add the ability to write pure grammatical English, with the help of very few hard words, I regard it as an excellent education. These are the tools; you can do much with them, but you are helpless without them. They are the foundation; and unless you begin with these, all your flashy attainments, a little natural philosophy, and a little mental philosophy, a little physiology and a little geology, and all the other *ologies and osophies*, are but ostentatious rubbish.

There is certainly no country in the world in which so much money is paid for schooling as in ours. This can be proved by figures. I believe there is no country where the common schools are so good. But they may be improved. It is not enough to erect commodious school-houses; or compensate able teachers, and then leave them, masters and pupils, to themselves. A school is not a clock which you can wind up and then leave it to go of itself. It is an organized living body: it has sensibilities; it craves sympathy. You must not leave the School Committee to do all the work. Your teachers want the active countenance of the whole body of parents, of the whole intelligent community. I am sure you, Mr. Smith, would gladly put up with a little injudicious interference in single cases, if you could have the active sympathies of the whole body of parents to fall back upon in delicate and difficult cases, and to support and cheer you under the burthen of your labors, from day to day. I think

this matter deserves more attention than it has received ; and if so small a number as thirty parents would agree together, to come to the school, some one of them, each in his turn, but once a month, or rather if but 25 or 26 would do it, it would give your teacher the support and countenance of a parent's presence every day ; at a cost to each individual of ten or eleven days in the year. Would not the good to be effected be worth the sacrifice ?

I have already spoken too long, Mr. Mayor, and will allude to but one other topic. In most things, as I have said, connected with education, we are incalculably in advance of other days :—in some, perhaps, we have fallen below their standard. I know, sir, old men are apt to make unfavorable contrasts between the present time and the past ; and if I do not soon begin to place myself in that class, others will do it for me. But I really think that in some things, belonging, perhaps, it will be thought, to the minor morals, the present promising generation of youth might learn something of their grandfathers, if not their fathers. When I first went to a village school, sir, I remember it as yesterday ;—I seem still to hold by one hand for protection, (I was of the valiant age of three years) to an elder sister's apron ;—with the other I grasped my primer, a volume of about two and a half inches in length, which formed then the sum total of my library, and which had lost the blue paper cover from one corner, (my first misfortune in life ;) I say it was the practice then, as we were trudging along to school, to draw up by the road-side, if a traveller, a stranger, or a person in years, passed along, "and make our manners," as it was called. The little girls courtesied, the boys made a bow ; it was not done with much grace, I suppose : but there was a civility and decency about it, which did the children good, and produced a pleasing impression on those who witnessed it. The age of village chivalry is past, never to return. These manners belong to a forgotten order of things. They are too precise and rigorous for this enlightened age. I sometimes fear the pendulum has swung too far in the opposite extreme. Last winter I was driving into town in a carriage closed behind, but open in front. There was in company with me, the Rev. President Woods, of Bowdoin College, Maine, and that distinguished philanthropist and excellent citizen, Mr. Amos Lawrence. Well, sir, we happened to pass a school-house just as the boys (to use the common expression) were "let out." I suppose the little men had just been taught within doors something about the laws, which regulate the course of projectiles, and determine the curves in which they move. Intent on a practical demonstration, and tempted by the convenient material, I must say they put in motion a quantity of spherical bodies, in the shape of snow balls, which brought the doctrine quite home to us wayfarers, and made it wonderful that we got off with no serious inconvenience, which was happily the case. This I thought was an instance of free and easy manners, verging to the opposite extreme of the old fashioned courtesy, which I have just described. I am quite sure that the boys of this school would be the last to indulge an experiment attended with so much risk to the heads of innocent third persons.

Nothing remains, sir, but to add my best wishes for teachers and pupils ;—You are both commencing under the happiest auspices. When I consider that there is not one of you, my young friends, who does not enjoy gratuitously the opportunity of obtaining a better school education, than we could have bought, Mr. Mayor, when we were boys, with the wealth of the Indies, I cannot but think that each one of you, boys and girls, will be ready to say with grateful hearts, the lines have fallen to me in pleasant places ; yea, I have a goodly heritage.

To you, Mr. Smith, we wish entire success. The community looks to you with confidence, to add to your high reputation as an instructor, and

commits to you these its treasures, with the full assurance that you will be faithful to the trust.

An original hymn, written for the occasion, was then sung.

At the close of the exercises, the Mayor, as Chairman of the School Committee, transferred the Building and the School to the immediate care of the High School Committee. Mr. Stearns responded in a word, as follows:—Mr. Mayor, in behalf of the High School Committee, I accept this important trust at your hands. We will endeavor faithfully and according to the best of our ability, to perform its duties, the first of which will be to commit the care of the school to Mr. Elbridge Smith, its principal teacher.

Mr. Smith, we sometimes say of a remarkably honest man, I would trust him with untold gold. We are about to entrust to you what is of unspeakably more value. If each of these pupils were a million of gold, the treasure committed to you would be worth infinitely less than these immortal minds. I speak in the name of every parent here, when I say we have no higher interests than the welfare of our children. If evil befall them—if through a defective education, they should turn out badly, there would be but little left to make life desirable to us. If you so succeed in your good work, that our sons and daughters shall grow up around us, intelligent, respectable, filial and good, you shall have our thanks here, and hereafter. We give you our confidence—Heaven grant you its blessing.

Mr. Smith remarked in reply,

That it was his sincere intention to receive the important trust, which had been committed to his care, without attempting a reply. But such had been the course of remark as to awaken feelings too strong to be suppressed: and though it might be but an act of rashness for an unpracticed hand to attempt extempore discourse in the presence of distinguished gentlemen, he felt called upon to say that he was deeply sensible that, in accepting this trust, he received no sinecure. Without enlarging upon the nature of his duties, or adding aught to what had already been said, he would simply say that he would perform the duties assigned him to the best of his humble ability. He felt that he should do injustice to his feelings not to return his thanks to the distinguished gentleman who had addressed us, for the sentiments which he had so beautifully and forcibly expressed. He had spoken of what he termed the *minor immoralities*. Mr. Smith had often had occasion to use the same expressions in enforcing the practice of those civilities of school life to which he had referred. And you, scholars, he remarked, can bear me testimony how often, during the brief period of my connection with you, I have referred you to our distinguished guest as combining in himself those very qualities which he has enjoined upon you. He had felt great pleasure in hearing his feeble instructions seconded by the example and precepts of one of the most gifted scholars of the land. He should have occasion to remember him with gratitude during the remainder of his life, for the aid which he had this day afforded him in the discharge of his duties as a teacher. The children have heard to-day the sentiments of one who has left the high duties of State and diplomacy for the still higher work of instructing New England youth. They should make this day a *crisis* in their existence.

He closed by remarking that in his boyhood, while laboring hard to acquire an education, he became the proud owner of a handsome octavo, entitled "Everett's Orations,"—no inconsiderable portion of which he committed to memory. He could not better conclude, than by reciting an extract which this occasion brought fresh to his recollection. "Let the pride of military glory belong to foreign nations: let the refined corruptions of the older world attract the traveller to its splendid capitals; let a fervid sun ripen for others the luxuries of a tropical clime. Let it be ours

to boast that we inherit a land of liberty and light; let the school-house and the church continue to be the landmarks of the New England village; let the son of New England, whither soever he may wander, leave that behind him which shall make him home-sick for his native land; let freedom, and knowledge, and morals, and religion, as they are our birthright, be the birthright of our children to the end of time."

The exercises were closed by singing a benediction hymn to the tune of Old Hundred, in which all present joined. The company left reluctantly; having spent three hours so profitably and pleasantly that the time passed unawares. The highest expectations have been raised in regard to the school, and we hope they may be more than realized.

We would gladly devote more of our pages to the publication of such addresses as these, but we have already swelled this volume beyond our original plan.

Our readers will find in the eighth and ninth volumes of the Massachusetts Common School Journal, for 1846 and 1847, very full and interesting accounts of the Dedication of the State Normal School-houses at Bridgewater and at Westfield. The addresses of the Hon. Horace Mann, Gov. Briggs, Prof. Sears, Hon. William Bates, and Rev. Dr. Humphrey, are worthy of the widest circulation. Dr. Humphrey's address is an elaborate argument in behalf of Normal Schools.

PUBLIC LIBRARIES IN RHODE ISLAND.

Rhode Island can boast the possession of the largest number of public libraries, having 500 volumes and upwards, in proportion to her population, of any State in the Union; and according to the Table published in the Report of Prof. Jewett, to the Regents of the Smithsonian Institute, in 1849, of any nation in the world.

PROVIDENCE.

Brown University—University,	23,000
United Brothers' Society,	4,000
Philermerian Society,	4,000
Atheneum,	15,200
Mechanics Association,	3,300
R. I. Historical Society,	2,000
Franklin Lyceum,	300
Friends Boarding School,	1,500
	53,700

The Library of Brown University, in respect both to the number of volumes, the range of selection, and the value of the editions, is one of the best in this country. It is the fruit mainly of individual donation and private liberality. The first purchases were made out of the general funds of the college, twenty pounds having been appropriated to this purpose in 1768. In 1782 the whole number of volumes was estimated at about 300. In 1783, a subscription in favor of the library was started by John Brown. In 1792, Nicholas Brown commenced his benefactions towards the college by the gift of three hundred and fifty valuable books, which he followed up in 1815, by a gift of four hundred dollars. In 1831 he subscribed \$10,000 towards Library Fund, which was increased by others, to the amount of \$19,437—which was placed at interest until it had accumulated to \$25,000. Since 1839 the income of this sum has been regularly appropriated mainly to the purchase of books for the library. In 1834-35, Mr. Nicholas Brown erected at his own expense, the beautiful edifice for the Library, and Chapel, known as Manning Hall. Among other donors to the Library should be mentioned the Rev. Isaac Backus of Middleborough, Mass.; Rev William Richards, of Lynn, England; Rev. Thomas Carlile; Mrs. Elizabeth H. Bartol, of Boston, and Mrs. H. S. Wayland; John Carter Brown, Moses B. Ives, and Robert H. Ives.

The Library, in 1793, contained 2,173 volumes; in 1826, 5,818 volumes, and on the first of January, 1843, 10,258 bound volumes; 416 of these were composed of pamphlets, and contained 3,576 distinct articles.

Since then valuable additions have been made to the number and value of the books, by the purchases of Prof. Charles A. Jewett, many years Librarian, and recently appointed Assistant Secretary of the Smithsonian Institute.

The **ATHENÆUM**, as incorporated at the January session of the General Assembly, 1836, owes its origin to a compromise between the members of the Providence Library, which was established in 1753, and of the Providence Athenæum, which was incorporated in 1831—these two companies having agreed to throw up their charters in favor of the new institution. In March, 1836, Nicholas Brown and the heirs of Thomas P. Ives, offered to give the Athenæum a lot of land on the corner of Benefit and College Streets, for the location of a building, \$6,000 towards the erection of a building thereon, and 4,000 for the increase of the library, provided other individuals would subscribe \$10,000 towards the building, and \$4,000 more to the library, before the first of June following. These terms were promptly complied with by the citizens of Providence—and in the course of the following year an appropriate and substantial building of granite was erected at an expense of \$19,000. In 1837 the Athenæum purchased 1680 volumes of the Providence Library, and 2400 of the Providence Athenæum, and at the date of the first Annual Report of the Directors, in Feb. 1837, the total number of volumes was 4162, with 293 proprietors. Since that date the Library has been increased by the purchase annually of about 1000 volumes of well selected works, until the present time, (Jan. 1849,) when the whole number exceeds 15,000. The present number of proprietors is 490. The price of a share is fifteen dollars, on which there is an annual assessment of five dollars. The annual sum for the purchase of books, salary of librarian, and incidental expenses, is about \$3000.

NEWPORT.

Redwood Library.	4000
Newport Mechanics Association,	1000
Hammond Circulating Library,	8200

The Redwood Library and Athenæum, owes its origin to a literary and philosophical society, which was established in Newport, in the year 1730. This society was composed of some of the most respectable men of the town of Newport, at that period one of the most remarkable in the American Colonies, for its wealth, learning and public spirit.

The formation of a library was, subsequently, considered by them as one of the most powerful means of accomplishing their original purpose, "the promotion of knowledge and virtue." The system of debates was gradually laid aside, and the energies of the society were solely directed to the collection of valuable books.

In the accomplishment of this new object, a great impulse was given by Abraham Redwood, Esq., who, in 1747, placed at the disposal of the society £500 sterling. for the purchase of standard books in London. To give permanence and usefulness to his donation, Mr. Redwood enjoined on the society the duty of erecting an edifice, as a depository for such books as might be purchased. In pursuance of their object, a charter of incorporation was obtained in 1747, and the society, in honor of their most liberal benefactor, assumed the name of the Redwood Library Company. For the erection of a library building, five thousand pounds were almost immediately subscribed by different citizens of the town.

The library building, which is a beautiful specimen of the Doric order, was commenced in 1748, and completed in 1750. The plan was furnished by Joseph Harrison, Esq., Assistant Architect of Blenheim House, England.

Hammond's Circulating Library is one of the oldest libraries in the country, and contains many rare books.

PORTSMOUTH.

School District No. 1,	600
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This was the first library established in the State as a part of the recent movement to improve the means of popular education. It owns its origin mainly to the liberal donation of \$100, by Miss Sarah Gibbs, a resident in the District.

NORTH PROVIDENCE.

There are four small libraries in North Providence, viz.: at Allendale, in the School District on Smith's Hill, and in Districts Nos. 1 and 2 in the village of Pawtucket, having in the aggregate about one thousand volumes.

SMITHFIELD.

Lonsdale Athæneum, founded in 1847	900
Slatersville Lyceum, " 1847	750
Globe Village, " 1840	350
Hamlet, " 1848	275
Bernon, "	200

2475

The library at Lonsdale was purchased by the Commissioner at an expense of about \$550, which was paid by the Lonsdale Company. The books are loaned out to the inhabitants, old and young, of the village, at a small charge of one cent per vol. More than seventy dollars were realized the first year out of the circulation of the books.

The Library at Slatersville was purchased out of an appropriation of \$500, made by Messrs. Slater, Lockwood, and Carter.

BARRILLVILLE.

Pascoag Manton Library, 900

This library, and the libraries in Glocester, Foster, Cranston, Hopkinton, Richmond, Charlestown, Exeter, Little Compton, New Shoreham, Jamestown, and Barrington, owe their existence mainly to the liberality of Amasa Manton, Esq. of Providence. By an aggregate expenditure of about one thousand dollars, he has been instrumental in raising in these towns, double that amount, and has thus secured the establishment of ten libraries with at least five thousand good books. Who can estimate the blessings, individual and social, which will flow directly and indirectly from the dissemination of these books, and which will continue to flow yet more abundantly when the liberal donor has himself passed from the earth, and another generation has risen up to have access to these libraries.

GLOCESTER.

Glocester Manton Library, 750

FOSTER.

Foster Manton Library, 1000

The liberality of Mr. Manton in this town was made trebly effective through the exertions of Dr. Arnold.

WARWICK.

Old Warwick Association, 500

Ladies Association, 250

To the former association Gov. Francis contributed \$100.

COVENTRY.

Washington Village, 400

Bowens Hill Library, 400

The library first named was given to the District by subscribers, residents thereof. The Bowens Hill Library owes its origin to a liberal contribution from Mr. Tully Bowen, of Providence.

BARRINGTON.

District No. 1, through the liberality mainly of Mr. Lewis B. Smith and Henry Smith, has a very valuable library of about 500 volumes,—the best School District Library in the State.

SOUTH KINGSTOWN.

Besides a small library at Kingston, there is an Itinerating Library consisting of about 400 volumes, which are divided into four cases, each case containing about one hundred books, and these cases pass in succession through the several villages in the town.

CHARLESTOWN.

As the subscription to the library in this town is completed, although the money has not yet been expended, the number of volumes which will probably be purchased, is added.

WESTERLY.

The Pawcatuck Library in Westerly is the best selected village Library in the State. Its history, organization, and catalogue, will be given in full, as affording useful hints to those who may wish to establish a similar library in other villages.

TABULAR VIEW OF PUBLIC LIBRARIES IN RHODE ISLAND.

	No. of Libraries.	No. of Volumes.
<i>Providence County.</i>		
Providence,	8	53,200
North Providence,	4	1,000
Cumberland,	0	
Smithfield,	5	3,475
Burrillville,	1	900
Glocester,	1	800
Foster,	1	1,000
Scituate,	1	500
Cranston,	1	400
Johnston,	0	
<i>Kent County.</i>		
East Greenwich,		
West Greenwich,		
Coventry,	2	800
Warwick,	2	700
<i>Washington County.</i>		
Westerly,	1	2,000
Hopkinton, }	1	800
Richmond, }		
Exeter,	1	662
Charlestown,	1	500
South Kingstown,	2	500
North Kingstown,	0	
<i>Newport County.</i>		
Newport,	3	13,300
Portsmouth,	1	600
Middletown,	1	300
Tiverton,	1	100
Little Compton,	2	1,000
New Shoreham,	1	400
Jamestown,	1	500
<i>Bristol County.</i>	0	
Bristol,		
Warren,	1	500
Barrington,	1	500
Total	44	84,237

Most of the libraries recently established, are open to all persons, resident in the Town, who will pay one cent a week for the use of a volume, and comply with the regulations which may have been adopted for the preservation of the books.

SKETCH
OF
THE ORGANIZATION AND REGULATIONS
OF THE
PAWCATUCK LIBRARY ASSOCIATION.

At a meeting in Westerly, of the citizens of the village and vicinity, on the evening of December 7th, 1847, immediately after the closing exercises of a Teacher's Institute, Mr. Barnard, the School Commissioner of the State, who was present, and had addressed the assembly, was called to the Chair, a Secretary was appointed, and the subject of the establishment of a Public Library in the town was presented and debated. After a full consideration and discussion of the subject, the following Resolutions were adopted:—

“ Voted, that Messrs. — (7 in number) be a Committee (one from each of the religious societies in town,) to circulate subscription papers, and to collect money for establishing a Public Library.

Voted, that the stock of such Library be divided into shares, the price of which shall be two dollars each; no subscription to be binding until two hundred and fifty such shares have been taken.

Voted, that the Committee aforesaid be authorized to take such farther action in relation to the subject, as they may deem proper, excepting so far as they are bound by the above votes.”

This committee, having met together after the meeting, divided the village and neighborhood into seven districts, to each of which, by mutual agreement, one of their number was appointed. The following is the form of the subscription paper circulated by them:—

“ Whereas, the establishment of a Public Library in the village of Westerly, embracing books in the several departments of useful knowledge, and conducted under such regulations as shall secure the proper use and preservation of the books, and the increase of the same, will promote the social, intellectual, and moral improvement of this community:

And whereas, at a meeting of the citizens of Westerly, convened in the Union meeting-house in said village, on the evening of December 7th, inst., Messrs. — were appointed a committee by said meeting, on behalf of the citizens, to circulate a subscription, and collect moneys for such a Library:

Therefore, we, the subscribers, do hereby associate for the purpose of establishing and purchasing such a Library, and hereby take the number of shares therein, set against our respective names, at two dollars each; and do promise and agree, each with the others, to pay the amount thereof to the before-mentioned committee, and to any one of them, and also to abide by such regulations as shall be adopted by a majority of the subscribers: Provided, that in all meetings of the subscribers (until a constitution or articles of association be regularly adopted,)

every subscriber shall be entitled to one vote upon each share subscribed for by him ; And provided, further, that this subscription shall be void, unless *two hundred and fifty shares* be subscribed for in good faith, on or before the first day of January next.

In witness whereof, we have hereunto set our hands, this eighth day of December, A.D. 1847.

Names.		No. of Shares.		Names.		No. of Shares.
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At a meeting called by the Soliciting Committee, and held on the evening of the 27th day of the same month, said Committee reported that more than 300 shares had been subscribed for already, and the Committee was continued. It was, also,

“ *Voted*, that a Committee of three be appointed to procure or draft a Constitution and By-Laws for the use of the subscribers, and present the same at their next meeting.”

At a meeting held by adjournment on the evening of January 17th, 1848, the Committee appointed to draft a Constitution and By-Laws, reported ; and the Constitution and By-Laws presented by them having been acted on article by article, were adopted. They are appended to this Sketch.

A Committee was also appointed to nominate such officers as were provided for in the Constitution just adopted, their report to be made at an adjourned meeting.

On the evening of January 24th, in the week following, the adjourned meeting was holden ; the Committee of Nomination reported, and the regular constitutional officers were elected.

At the same meeting it was

“ *Voted*, that the Secretary be requested to have the Constitution of the Association recorded in the Book of Land Evidence of this town, agreeably to an Act of the General Assembly, passed at their June Session, 1847.”

In the week following, the Constitution was recorded, as directed, in the Book of Land Evidence of Westerly, by the Town Clerk. The record bears date January 31st, 1848.

By these several steps the Association became fully organized and incorporated. A copy of the Law is appended to this Sketch, that the members of the Association may more conveniently consult it, and be informed of their legal rights and liabilities.

In the mean time, on December 27th, a Committee had been appointed “to procure a *Catalogue of Books*, which will cost about one thousand dollars, and present the same to the subscribers.” The business of this Committee was very responsible, as the selection of the most suitable books for the use of the Association was to be made by them, as well as the arrangement of prices. Accordingly, they corresponded extensively

with publishers in different places, as to books and prices, and also with the School Commissioner of the State.

It was finally concluded, in view of the extreme difficulty of selecting books, and as the most economical course, to request the School Commissioner, who was deeply interested in the prosperity of the Association, to select suitable books to the amount proposed to be expended ; his selection (with his free consent) to be subject to the revision and approval of a committee of the Association. Through the kind co-operation of the Commissioner, this arrangement was effected.

The following catalogues exhibit the books purchased, under the assistance and advice of the Commissioner.

The sum expended for books is exactly *eleven hundred dollars*. The fitting up of a room with shelves, lamps, stove, chairs, and other necessary furniture ; the freight of boxes and packages ; the expenses of traveling, &c., of committees, amount to about two hundred dollars more.

The number of separate volumes in the Library is upwards of two thousand and fifty. But the number of distinct works, or treatises, is far more, as may be seen by reference to the Catalogue of subjects. If the books selected had been generally of a smaller size, and of a less valuable sort, the number of volumes might have been doubled. Of the books in this Library, some *fifty* or *sixty* are large *folios* and *quartos* ; about *five hundred and fifty* are *octavos*—many of them very large and thick royal 8vos. ; about *six hundred* are *duodecimos* ; and the remaining *eight hundred and fifty* (comprising, with many other works, such *sets* as “Harpers’ District School Library,” of 295 volumes ; “Harpers’ Classical Library,” selected, 29 volumes ; the “Youth’s Christian Library,” 40 volumes ; “Appleton’s Common School Library,” 50 volumes ; “Abbott’s Rollo and Lucy Books,” &c., 30 volumes ; “Walsh’s British Poets,” 50 volumes ; “Charlotte Elizabeth’s Works,” 21 volumes ; the “Library of Entertaining Knowledge,” a beautifully bound English edition, 43 volumes ; the “Naturalist’s Library,” a costly English edition, with numerous colored plates, 50 volumes, &c., &c.,) are 16mos., 18mos., &c. All the volumes in the Library are well bound, either in leather or cloth, or good half-bindings with leather backs. Some of them are elegantly bound. Many of the books, of all the sizes, are English editions. As to the quality of the works selected, those who will take the trouble to examine the catalogues, will see that, as far as they go, they are generally standard works.

It is but justice to Mr. Barnard, whose aid was so kindly rendered in the selection and purchase of the books, to say (and those who examine the catalogues will admit the propriety of the remark,) that it would be difficult to expend *eleven hundred dollars* for books more judiciously or ad-

vantageously, than has been done in the present case. To that gentleman, for his willing and very efficient aid, the members of the Association would acknowledge their sincere sense of obligation.

The regular annual expenses of the Association for room rent, salary of librarian, fuel, lights, &c., will not exceed *one hundred dollars per annum*. The hire of books, even at the low rates agreed upon, if the past six months furnish any data for opinion, (a period, too, in which the lack of a catalogue has been a serious disadvantage, and when the short and warm evenings of summer have not invited the community to much reading,) will secure an annual income to the Association two or three times greater than its necessary expenses, thus providing a fund for making good the damages of the books, and for gradually enlarging the number of volumes in the library.

This Sketch has been prepared and inserted in the present pamphlet, for three reasons:—

To furnish to the members of the Association, in a form fitted for preservation and convenient for reference, the record of the early history of their undertaking, as well as the Rules and the Law which bind and sustain them as a body corporate;

To answer the kind inquiries of such friends of education in other parts of the State as have been interested in the objects and efforts of the Association; and

To suggest, possibly, the aid, though slight, of a recent and successful experience, to such of our sister towns and villages as are contemplating the establishment, within their own limits, of public libraries.

WESTERLY, R. I.,
December, 1848.

CONSTITUTION AND BY-LAWS
OF THE
PAWCATUCK LIBRARY ASSOCIATION.

(THESE were prepared, by a collation of the Constitutions and By-Laws of several similar Associations, and chiefly from those of the Providence Athenæum, with such omissions and modifications as the place and circumstances of this Association seemed to render expedient.)

CONSTITUTION.

Art. 1. This Association shall be called the Pawcatuck Library Association.

Art. 2. The officers shall be a President, a Secretary who shall be Treasurer, and seven Directors, who together shall constitute a Board of Directors.

The officers shall be chosen at the annual meeting of the proprietors, and shall hold their offices one year, or until others are chosen in their places:—Provided, that when they are not chosen at the annual meeting, the election may take place at any other meeting duly called.

Art. 3. The President shall preside at all meetings of the Association and of the Board of Directors, preserve order therein, give the casting vote, and perform all other duties which usually appertain to such an officer.

In case of his absence the senior Director present shall preside.

Art. 4. The Secretary shall notify all meetings of the Association and of the Board of Directors, keep a fair record of their respective proceedings, and conduct all the correspondence of the Association, according to the direction of the Board. He shall keep a regular record of the number of shares owned in the Association, placing opposite each name the number of shares held by such proprietor, and he shall present at each annual meeting a list of the names of the stockholders in the Association.

Art. 5. The Treasurer shall keep an exact and faithful account (in a book kept for that purpose) of all the financial concerns and property of the Association, and collect and receive all money due or belonging thereto. He shall pay no bills but by order of the Board, under such regulations as they prescribe, and shall make a detailed report of the state of the treasury, and of the financial concerns of the Association, at each annual meeting, and also whenever required so to do by the Board of Directors or by the Association.

Art. 6. The Board of Directors shall direct the purchase of books, and transact, manage, and regulate all affairs of the Association of every kind not otherwise provided for by the Association; and shall present at the annual meeting a detailed report of the state of the Library and of the general concerns of the Association. The Directors shall also have power to fill any vacancy occurring in their own body; and any officer thus elected by the Board, shall continue in office until the next annual meeting, or until the election of a new Board.

Art. 7. There shall be an annual meeting of the Association, to be holden at such place as shall be appointed and notified by order of the Board of Directors, on the first Monday in December in each year, for the choice of officers, and for the transaction of other business.

Art. 8. Ten proprietors shall be necessary to form a quorum of the Association. Four of the Directors shall constitute a quorum of the Board.

Art. 9. Any individual, who shall pay into the treasury two dollars, shall be a stockholder or proprietor, and entitled to one share of the joint stock of the Association, which shall be transferable.

In all meetings of the Association, each stockholder shall be entitled to one vote for each share held by him ; Provided that, if the number of shares held by such stockholder exceed five, he shall be entitled to only one vote for every five shares above that number.

Art. 10. Each stockholder or proprietor, if he require it, shall be furnished with a certificate of the share or shares by him owned, signed by the Secretary, in the following form, (viz.)

Westerly, R. I.

This certifies that A B is proprietor of (*number*) shares in the Pawcatuck Library Association, and entitled to all the rights and privileges of a proprietor, and subject to all the By-Laws, Rules, and Regulations of the Association.

Signed by the Secretary.

Art. 11. This Constitution may be altered, or amended, at any annual meeting of the Association, or at any special meeting, provided it be inserted in the notice for said special meeting that an amendment of the Constitution will be then proposed ; and provided, also, that two-thirds of the members present approve the same.

B Y - L A W S .

Art. 1. The Library shall be kept open on such days, and at such hours, as the Board of Directors may direct.

Art. 2. All books, pamphlets, &c., shall be legibly marked with the words "Pawcatuck Library Association," and, if donations to the Association, shall (unless otherwise requested,) be inserted with the names of the donors, in such manner as the Board may direct.

Art. 3. Every proprietor shall be allowed to take out and hold not more than two volumes at a time, and may retain each volume not more than four weeks, if such volume is desired by another person ; and every person shall be subject to a fine of two cents per day, for every volume retained beyond the above specified period.

Art. 4. Any person shall have the privilege of drawing books from the Library, subject to all the laws of the Library, by paying into the treasury one dollar per annum : or, every proprietor may have such privilege by paying one cent a week per volume ; and every person, not a proprietor, by giving satisfactory security to the librarian, and paying three cents a week per volume.

Art. 5. Every book shall be returned in good order, regard being had to the reasonable wear thereof. If any book shall be lost, or essentially injured, the person to whom it stands charged shall replace it by a new volume, or set, if it belong to a set, or pay the current price of the same ; and thereupon the remainder of the set, if it belong to a set, shall be delivered to the person paying therefor. Cases of injury shall be considered by the Board, who shall determine whether the injury be sufficiently serious to require the removal of the book or set, and who, in the event of a less injury, shall assess the amount of damage. The determination of the Board shall be final, and the amount of damages assessed shall be collected by the Treasurer.

Art. 6. No book shall be delivered to any person until all sums due to the Association from him shall have been paid.

Art. 7. No book shall be lent by any person under the penalty of one dollar.

Art. 8. No book shall be taken from the Library, neither shall any book be removed from the cases, except at the stated times of delivery, without permission being first obtained from any two members of the Board.

Art. 9. No book shall be taken from the Library for a person not present, except the person drawing said book be responsible for its return.

Art. 10. The Board of Directors shall, from time to time, specify what books, on account of their rarity, value, &c., shall not be taken from the Library room, except by their special order.

Art. 11. All books shall be returned two weeks previously to the annual meet-

ing of the Association, for examination by the Board; and any person neglecting to conform to this regulation, shall be fined fifty cents.

Art. 12. A Librarian shall be appointed by the Board, and such compensation allowed for his services as said Board may determine.

It shall be his duty to arrange, and preserve in proper order, all books, pamphlets, charts, &c., and, under the direction of the Board, make a full and accurate catalogue of the same.

He shall record, in a suitable book, all donations made to the Library, keep a regular account of all fines incurred, and collect and pay the same over to the Treasurer, report to the board all donations and communications received by him since the last preceding meeting, and all violations of the library regulations. He shall, moreover, perform such other duties pertaining to his office as the Association or Board may from time to time prescribe.

Art. 13. The Board may, in their discretion, impose penalties for the breach of any of the library regulations to which penalties are not affixed.

AN ACT passed by the General Assembly of the State of Rhode Island and Providence Plantations, at the June Session, in the year of our Lord one thousand eight hundred and forty-seven.

“An Act to provide for the voluntary incorporation of Library, Academy, and School Associations.

Whereas, by the 24th and 25th sections of An Act to revise and amend the several Acts relating to Public Schools, passed in January Session, A.D. 1839, provision was made for the voluntary incorporation of School and Library Associations, which provisions were inadvertently omitted in the revision of said Act in June, A. D. 1845—therefore, *It is enacted by the General Assembly as follows :*

Sec. 1. Whenever any persons, to the number of three or more, shall hereafter associate together for the purpose of procuring and maintaining a Library, or procuring and supporting an Academy or School-House, they shall, upon complying with the terms of this Act, become a body corporate for such purpose, by such name as they may designate, and subject to such regulations, conditions and constitution as they may have adopted. And they may hold, control and convey real and personal estate to an amount not exceeding five thousand dollars exclusive of their building, and the lot on which it may stand, and of their books, maps, pictures, and library furniture.

Sec. 2. In case of any association of any number of members heretofore formed for the purpose of maintaining a library and not incorporated, any three of the members may call a meeting, and appoint a time and place therefor, giving to all the known members resident in this State five days' notice thereof, to be served as an original summons is required to be served by law, by some sheriff, deputy sheriff, constable, or by some disinterested person who shall make oath thereto ; and at such meeting so held, a majority of the persons present entitled to vote, may organize said association as a corporation under this Act.

Sec. 3. The library corporations formed under this Act, shall have the power to make assessments on shares, and regulated by by-laws, the manner of selling them on failure of payment ; and all transfers of the shares shall be recorded in the books of the corporation.

Sec. 4. All corporations organized under this Act, may elect such officers, and for such time, as they deem proper ; may regulate by by-laws the manner of calling annual or other meetings, may require their officers to give bonds, determine the manner of voting, and how many shall constitute a quorum, and generally may make all necessary by-laws not inconsistent with law or their constitution, and may prescribe suitable penalties for the violation of them, which, if in money, shall not exceed twenty dollars, and may be collected by action of debt in the name of the corporation. All officers shall continue in office until their successors are appointed, and vacancies may be filled at any meeting or in such manner as the corporation may direct. If no mode is provided of calling annual or other meetings, the clerk or secretary shall call a meeting on the request of any three members, by posting up a notice thereof for five days in some public place upon the library building, academy, or school-house. And a majority of votes, either in person or by proxy, shall constitute a quorum, unless otherwise provided by the corporation.

Sec. 5. To entitle any association to the benefit of this Act, the constitution or articles of association, and all alterations thereof, shall be recorded in the books of Land Evidence of the town where the library, academy, or school-house is situated. Any such corporation shall not be dissolved by any reduction of the number of its members.”

EXPLANATORY REMARKS

ON THE

CATALOGUES.

THE first of the following catalogues is a *Catalogue of Subjects*. Its design is not simply to give *the titles of the books* of the Library, but to furnish an *Index to the subjects considered in the books*. To effect this, the various books in the Library have been analyzed with considerable care, and the several subjects exhibited by them have been arranged under their proper heads. The analysis has been confined to distinct treatises and separate articles on subjects. If it had been extended to incidental discussions, and separate references to subjects, this Catalogue might have been swelled indefinitely to a large volume or volumes. As it is, the analysis, although confined to *distinct works*, is probably not so full as it might have been made. Some less important works have been, doubtless, overlooked, and others, included under larger titles, have been omitted. Still, the analysis is probably extensive enough, for all practical purposes, for the use of the Catalogue. The design of the analysis, it is thought, has been accomplished, viz.—to make the Catalogue so full, that no one shall be obliged to remove a book from the shelves in order to learn its contents or subjects; and that those who use the Library may make their selection of books directly from the Catalogue. Thus the convenience of persons in their selections will be greatly promoted, and the injurious handling of the books be prevented.

The works, under each head and subdivision, are arranged *alphabetically*, after the names of the authors, or (where the authors are not known) after the leading words in the titles of the book. To this arrangement there are two exceptions. One is, that, in a few cases, where books by different authors, in a set or series of volumes on a single subject (as, for instance, the “Naturalist’s Library,” or the “British Poets”) are regularly numbered, such sets are placed in the Catalogue, *after the editor’s name*, in the simple order of the numbers of the series. The other exception is, that, under the head of Biography, the names of *the subjects* of the memoirs, and not of the authors, are placed alphabeti-

cally, as such an arrangement is supposed to be more convenient to the reader.

In addition to the Catalogue of Subjects, a *Catalogue of Authors* is also given, in which *the names of all the Authors in the Library are placed alphabetically*, and under each name all such works of the author as belong to the Library.

By the aid of these two Catalogues any person, even those least familiar with books, may very readily refer to any work or any subject, which they may wish to examine.

In both Catalogues the number of each book, as it stands on the Library shelves, is carried out on the margin of the page, against its title.

The books, being arranged upon the shelves of the Library according to their sizes and similarity of binding, and not according to subjects or authors, the numbers accordingly follow one another irregularly in the Catalogues. In the shelves, however, the books are all numbered regularly, beginning with No. 1 on the left hand of the upper shelf, and extending through that shelf to the extreme right; and, in like manner, from left to right through all the shelves, from the highest to the lowest. On the edge of each shelf every 10th or 20th number is noted in large figures. A person may, therefore, turn immediately from the number in the Catalogue to the corresponding number on the shelf of the Library.

It will be observed, that in some cases *the same number* is occasionally *repeated* in the different parts of the Catalogue of Subjects. This occurs from the fact, that *some books, or volumes, comprise more than one subject*. Thus, for instance, the book entitled "Narrative of Discovery in Africa," No. 351, comprises three different works, by three different authors,—Discoveries, by H. Murray; Mineralogy, &c. by Prof. Jameson; and Natural History, by J. Wilson—each to be noted under its proper subject-head. Thus, too, each volume of the Christian Library comprises fifteen or twenty distinct works on various subjects by different authors, each to be properly classified; while the one number of the comprehensive volume will stand in the Catalogue for them all. In *all* these cases, *where the same number is repeated*, different subjects included in these numbers, and generally different works by different authors in the same numbers, are referred to.

It will be observed, too, that in a few cases the *same work* is repeated under *different numbers*. This occurs from the fact, that frequently a work which is published in one set of works is contained also in some other set. Thus, for example, Davis' History of China is in the English Library of Entertaining Knowledge, and is also republished in Harpers' District School Library. Thus Taylor's Life of Cowper is included in

both the *first* and the *second* series of the Christian Library. Thus, the Vicar of Wakefield is in Harpers' District School Library, and in Wiley and Putnam's Library of Choice Reading; and is also published in the set of Goldsmith's Complete Works. In the selection of books, and in the arrangements for their purchase, particular care was exercised to avoid, as far as possible, the multiplication of duplicates. In a few cases only, like those above, they were necessarily admitted. There are not more than half a dozen such cases in the whole Library. It is doubtful whether a Library as large as this, containing so many *sets* of works, can possibly be purchased to include fewer duplicates than this.

If the reader wishes a work on a *particular subject*, let him turn to that subject in the first Catalogue, and select one from the works enumerated under that head. Or if he seek a *particular author on that subject*, let him run his eye down the column of authors on that subject, until he meets the initial letter of his author's name, and in the proper place under that letter, he will find his author. Or, if he wishes to find some work of *an author*, and be *in doubt as to the subject* under which it should be classed, let him turn to the *second Catalogue*—that of authors—and under the *initial letter* of the name, in its proper place, he will find the author sought for; and *under his name*, a list of all such of his works as are in the Library.

The *last head* in the first Catalogue is entitled *Collectanea*. Under it are arranged, with the publisher's or editor's names, all the principal *sets or series of works* in the Library. This is done simply for the sake of showing, at a single view, the variety and extent and value of this class of publications. The separate books included in the several series named under the head referred to, will be found distributed, according to their subjects, in the first Catalogue. It will, however, be frequently convenient to refer to these series of books, by themselves, as distinct and entire sets. To meet this want, a full Index of each Set or Series, included under the head of *Collectanea*, is given.*

Attention is particularly called to the works under the first head of the Catalogue of Subjects, that of *Dictionaries and Books of Reference*. The value of these Encyclopedias is very great. From the character of this class of books there has been no attempt to analyze them; for they treat upon all subjects, and their articles being alphabetically arranged, are easily referred to. The use of these books is especially recommended. Something explicit and satisfactory can be found in them, *on all points* of the subjects to which they severally refer, many of which points are entirely overlooked in other works of a more limited character. For this reason they are of the highest importance as books of reference. The encyclopedia of any subject presents the substance or results of all that

* Omitted.

has been written, in all the more limited works, upon that subject, under a single view. Amongst the encyclopedias in this Library, two are especially alluded to, the American Encyclopedia and the Penny Cyclopaedia. These are general in their character, embracing almost all the themes of human knowledge ; and they give information on a multitude of topics which are not treated of in any other books in the Library. On the very numerous points of all Science and Art and Literature, and on the Biography of all nations, and on the History of all times and countries, the articles in these works are of high authority. Generally, these articles are sufficiently full for the satisfactory exhibition of the subject handled ; while many of them, especially on scientific and historical subjects, are very elaborate and extensive. It is important that those who wish to profit by the Library, should realize the value and usefulness of these books of reference.

Further suggestions will be found scattered through the body of the Catalogues, wherever they have seemed to be necessary or appropriate.

In conclusion, the reader is reminded that the foregoing remarks, as well as those which follow in the body of the Catalogues, are intended not only to illustrate the plan of the Catalogues, but also to furnish brief and simple hints, as to the most profitable mode of consulting and using the books of the Library.

With these explanations, the Catalogues are submitted to the considerate indulgence of the members of the Association, for whose benefit and convenience they have been prepared.

HINTS ON READING.

SINCE the preceding remarks on the Catalogues were written, with the few brief hints on the use of the books in the Library, it has been thought advisable to collect, more distinctly, some suggestions on the whole *subject of reading*. Under a few general heads, the opinions of some very able writers and experienced guides on the subject are accordingly here arranged. The selections are from *detached passages* of the authors quoted, and are arranged under such general heads as have seemed the most simple and practicable to the compiler.

“Read not to contradict and confute, nor to believe and take for granted, nor to find talk and discourse, but to weigh and consider.”—*Lord Bacon's Essay on Studies*.

1. DEFINITION OF READING.

Reading, in its true sense and use, is *study*—sometimes a laborious, sometimes an entertaining perusal of books—but always *the study of books*.—“Reading,” says Dr. Watts, “is that *means or method of knowledge*, whereby we acquaint ourselves with what other men have published to the world, in their writings.”—*Watts on the Improvement of the Mind*, p. 38.

2. OBJECTS OF READING.

“The question recurs, What is the proper object of Reading? what the end to be kept in view, in the choice and perusal of books? One great end, doubtless, is *Knowledge*. . . . One object of reading, then, is to acquire knowledge. But we must bear in mind that knowledge, in itself, is not so much an end as a means, and that we are always to keep in view its ulterior uses and applications. . . . Knowledge brings with it *duties* which are not to be neglected. It is a *talent or trust*; and to enable us to employ it aright, we should understand well the end for which God has given us capacities for acquiring it. On no subject are men more likely to err; and how grievous the error is, and in what ways it manifests itself, let Lord Bacon teach. ‘But the greatest error,’ says that great writer, ‘of all the rest, is the mistaking or misplacing of the last or farthest end of knowledge; for men have entered into a desire of learning and knowledge, sometimes upon, &c., . . . seldom sincerely to give a true account of their gift of reason to the benefit and use of men, as if there were sought in knowledge a couch, &c., &c., and not *a rich store-house for the glory of the Creator and the relief of man's estate*.’ Such, then, is the use of knowledge. It constitutes a rich store-house, whence we should draw materials for glorifying God, and improving man's estate. In other words knowledge is to be employed by us in doing good. . . . This remark leads us to notice another of the benefits to be derived from books, when judiciously selected and properly read. This is *the improvement of our intellectual powers and moral sentiments*. . . . So, again, in regard to taste. . . . What is true of intellect and taste, is not less true of our *moral sentiments*. . . . (Recapitulation.) *Why should we read?* Partly to procure immediate gratification, but principally,—1st, to acquire knowledge, both for its own sake, and for its uses: 2ndly, to improve the intellectual powers: 3dly, to refine taste: and 4thly, to strengthen the moral and religious sentiments.”—*Professor Alonzo Potter, D. D. Advantages of Science, Harpers' Ed.*, pp. 14, 19, 20, 21, 23, 24, 31.

"In all our studies and pursuits of knowledge, let us remember that virtue and vice, sin and holiness, and the conformation of our hearts and lives to the duties of true religion and morality, are things of far more consequence than all the furniture of our understandings, and the richest treasures of mere speculative knowledge."—*Watts on the Mind*, p. 69.

3. GENERAL ADVANTAGES OF READING.

"These arts of reading and writing are of infinite advantage ; for by them we are made partakers of the sentiments, observations, reasonings and improvements of all the learned world, in the most remote nations, and in former ages, almost from the beginning of mankind. The advantages (of reading) are such as these: 1. By reading, we acquaint ourselves, in a very extensive manner, with the affairs, actions, and thoughts of the living and the dead, in the most remote nations, and in most distant ages ; and that with as much ease, as though they lived in our own age and nation. By reading we may learn something from all parts of mankind. 2. By reading, we learn not only the actions and the sentiments of distant nations and ages, but we transfer to ourselves the knowledge and improvements of the most learned men, the wisest and the best of mankind, when or wheresoever they lived. For though many books have been written by weak and injudicious persons, yet the most of those books, which have obtained great reputation in the world, are the products of great and wise men in their several ages and nations. . . . 3. When we read good authors, we learn the *best* sentiments, even of those wise and learned men. For they studied hard, and committed to writing their maturest thoughts, and the result of their long study and experience. . . . 4. It is another advantage of reading that we may review what we read, we may consult the page again and again, and meditate on it, at successive seasons, in our serenest and retired hours, having the book always at hand."—*Watts*, pp. 38, 41, 42.

"Written records constitute the only authentic memorials of the past ; and, since those records have been multiplied by printing, and spread over the world, they are truly imperishable. Nor only so ; they are now the property of the whole race. Now almost all minds experience their enlightening and quickening influence. There is hardly an individual whose knowledge is not enlarged by the use of books ; while, at the same time, multitudes are incited by them to add, by their own labors and discoveries, to the great sum of human attainments. Another advantage of the knowledge gained from books is, that it is much of it arranged and systematized. Thus we are enabled to see the dependence and connection of different truths ; and, what is more important, we learn to study *principles and laws*, instead of losing ourselves amid a multitude of incongruous facts. . . . How important, then, that every one, who would cultivate in his own mind the true spirit of investigation, or who would acquire that power which results from knowledge, how important that he should become familiar *with such books* as illustrate the nature, and embody the fruits of this system of inquiry."—*Potter : Advantages of Science*, pp. 16, 17.

4. IMPORTANCE OF READING, TO THE BUSINESS MAN, THE MECHANIC AND THE MANUFACTURER.

"Let me invite your attention to the consideration of the probable beneficial effect of the diffusion of scientific knowledge, among those practically and habitually employed in the mechanic and manufacturing arts, and it is likely to operate upon the improvement and advancement of the arts and sciences themselves. Perhaps there is no better definition of science, than that it is knowledge acquired by the thoughts and the experience of many, and so

methodically arranged, as to be comprehended by any one. . . . The theory of science, then, is the exposition of known facts, arranged in classes, and expressed in words. . . . The advantages of experience and observation on a large scale, are by no means peculiar to mechanical ingenuity. . . . It is peculiarly true with regard to the chemistry of the arts. . . . In fact, the very foundation of modern chemistry, or, at least, of that branch of it termed pneumatic chemistry, was laid in a brewery. There had been no lack of ingenuity, no sparing of labor or expense, no flagging of zeal or curiosity among the old chemists. But the larger and more striking field of observation and combination afforded to Dr. Priestley, by the vats and gases of his neighbor, the brewer, opened a new world to inquiry. From the thick vapors of the brew-house, like one of the gigantic genii of oriental romance, arose that mighty science which has given to enlightened art a more than magical sway. . . . It is wonderful how the elements of the most precious knowledge are spread around us; how to the curious and instructed observer every thing is full and rich with the means of benefiting the human race. The slightest accession to our knowledge of nature, or our command over it, is sure, ultimately, to connect itself with some other truth, or to unfold its own powers or relations, and thus to lead on to some practical benefit, which the boldest conjecture could never have anticipated. The ignorant and the idle, suffer all such opportunities to pass by them as the vagrant breeze. But such will surely not be the case with industrious men, prepared by general science to turn those occasions to the best account. . . . I argue from experience. . . . Take, for instance, the history of one of the most recent and precious gifts which chemistry has made to medicine. A few years ago, a soap manufacturer of Paris, M. Courtois, remarked that the residuum of his lye, when exhausted of the alkali, produced a corrosion of his copper boilers, which struck him as deserving special inquiry. 'He put it,' says Mr. Herschel, 'into the hands of a scientific chemist for analysis, and the result was, the discovery of one of the most singular and important chemical elements, *iodine*. . . . Curiosity was excited; the origin of the new substance was traced to the sea-plants, from whose ashes the principal ingredient of soap is obtained, and ultimately to the sea-water itself. It was thence hunted through nature, discovered in salt mines and springs, and pursued into all bodies which have a marine origin; *among the rest into sponge*. A medical practitioner, (Dr. Coindet, a Swiss physician,) then called to mind a reputed remedy for the cure of one of the most grievous and unsightly disorders to which the human species is subject—the *goitre*. . . . and which was said to have been originally cured by the ashes of burned sponge. Led by this indication, he tried the effect of iodine on that complaint, and the result established the extraordinary fact, that this substance, taken as a medicine, acts with the utmost promptitude and energy on goitre, dissipating the largest and most inveterate in a short time, and acting (of course with occasional failures, like all other medicines,) as a specific or natural antagonist against that odious deformity.' Now consider what a map of human misery, for a long series of generations to come, has been relieved or removed by this discovery, arising from *the single circumstance of a Parisian soap manufacturer being an observing man, who understood the uses and nature of chemical analysis*. . . . Let us cross the channel to Great Britain, for some farther examples. . . . *The Telescope*, in its earliest stages of invention had received all the improvement that could then be furnished by the genius of the great Galileo, the father of modern science, and by the superhuman philosophical sagacity of Sir Isaac Newton, as well as of their disciples and followers, the most learned and ingenious men of Europe, such as the English Hooke, the Dutch Huygens, and the German Euler.—The product of these labors was admirable proof of the power of human invention; yet it was accompanied *with imperfections, especially in the refracting telescope*, that seemed insuperable. . . . The removal of this defect was reserved for *John Dollond*, originally a silk weaver, and afterward an optician and instrument-maker, of London. Half a century after Newton's exper-

iments, Dollond conceived the idea, that the refractive powers of different kinds of glass might be made to correct each other. In this he completely succeeded. Had he not *been familiar with the science* of Newton, Dollond would never have attempted this discovery; had he not also been a *practical mechanic*, it is hardly probable that he would have succeeded. The incidental mention of the ultimate advantages derived by the art of navigation from the labors of Dollond, suggests to my mind another illustration, and recalls the name of *John Smeaton*. He was by regular trade, a philosophical instrument-maker, but his active mind had taken a broad range of rational curiosity and employment, embracing almost every thing in science or art, that could throw light on mechanical contrivance. His inventions of this sort were very numerous and ingenious, but his solid fame rests chiefly upon the erection of the Eddystone lighthouse. There are few narratives of more intense interest or varied instruction than his own account of this great work. The names and lives of our own distinguished benefactors of mankind—Franklin, and Rittenhouse, and Whitney, and Fulton, and Perkins—press upon my memory. The history of Printing offers another tempting field of collateral illustration. I might tell of the Italian Aldus and his sons, of Henry Stephens, of Paris, and his learned family, of the Dutch Elgivirs, the English Bouyer, the Scotch Foulis and Duncan, and surely could not forget the noblest name of them all, our own Franklin. I must also reluctantly refrain from detailing the studies, inventions and improvements of the potter, *Josiah Wedgewood*. But from among the names which thus crowd upon me, let me adduce one more bright example. It was about this season of the year, just seventy years ago, that the instrument-maker employed by the University of Glasgow, received from the professor of natural philosophy in that ancient seminary of learning, a broken model of the steam-engine, as then used, to be put in order for his lectures. An ordinary workman, after admiring the ingenuity of this imperfect machine, would have made the necessary repairs, sent it back to the lecture-room, and the world would have gone on as usual. But it had fallen into the hands of *James Watt*, a young mechanic, of singular and various inventive sagacity, and of most patient and persevering ingenuity, who, *in addition to much miscellaneous information, and some mathematical acquirement, had been led by a liberal curiosity to master all that was then known of chemistry, and theoretical natural philosophy in its broadest sense*. Look around for yourselves—on our rivers and lakes—on the manufactures of Europe and America, piled up in our shops—on the railroads which traverse, or are just about to traverse, our continent—on the wealth, the power, the rapid interchange of commerce and intelligence produced by the modern steam-engine, and then let me remind you, that all this is the fruit of the solitary labors and studies of a Glasgow work-shop; directed by an active, vigorous, daring, but most patient and persevering mind, *which knew how to use well the knowledge that other wise or ingenious men had previously reasoned out or discovered*. I have not yet touched upon the influence of knowledge, upon the operative and producing classes themselves, in improving the character, raising the thoughts, awakening sleeping talent, and thus qualifying this great and valuable body, for the able, just, right, wise and honorable discharge of all the duties of men, of citizens, of freemen, of patriots. This is alone, and in itself, a theme full of interest—full of excitement. . . Such were Saratoga's victors, such the brave men whose blood earned our liberties. Foremost among them was *the blacksmith* of Rhode Island, *Nathaniel Greene*; he whom Hamilton, while he honored Washington as 'the first man of the country,' did not hesitate to style 'the first soldier of the Revolution. There also was the *book-binder*, *Knorr*, and from among *the mechanics* of New York, came forth our *Willet*, 'the bravest of the brave.' Abroad, our interests were watched over, and our national dignity represented, by the *printer*, *Franklin*. Foremost in our councils at home, and enrolled among the immortal names of the committee of five, who prepared and reported the Declaration of Independence, was

the *shoemaker*, *Roger Sherman*, a man self-educated and self-raised. Here were other names like these which I cannot now pause to recapitulate. Still I cannot forbear from paying a passing tribute to the memory of a townsman and a friend. The courage, seamanship, and ability of *Commodore Chauncey*, would have been exerted in vain, had they not been seconded by the skill, the enterprise, the science, the power of combination, and the ready and inexhaustible resources of his *ship-builder*, *Henry Eckford*. The ardor for improvement, the thirst for knowledge, manifested by the mechanics of this and others of our cities, are gratifying indeed. But they derive a tenfold interest and value from the greater results which they foretell, and the more glorious future they appear to usher in." *Gulian C. Verplanck's Discourse before the Mechanics' Institute of New York*, Nov. 27, 1833—passim.

5. CHOICE OF BOOKS.

"The world is full of books ; but there are multitudes which are so ill-written, that they were never worthy any man's reading ; and there are thousands more which may be good in their kind, but are worth nothing, when the month, or year, or occasion is past, for which they were written. Others may be valuable in themselves for some special purpose, or in some peculiar science, but are not fit to be perused by any but those who are engaged in that particular science or business. It is of vast advantage or improvement of knowledge and saving time, for a young man to have the most proper books for his reading recommended by a judicious friend. There is yet another sort of books, (in addition to *books of science and complete treatises* on subjects, which are first recommended,) of which it is proper I should say something while I am treating on this subject ; and these are *history, poesy, travels, books of diversion or amusement* ; among which we may reckon also, little common *pamphlets, newspapers, or such like*. For many of these, I confess, *once reading may be sufficient*, where there is a tolerably good memory. Still let it be remembered, that where the historical narrative is of considerable moment, where the poesy, oratory, &c., shine with some degrees of perfection and glory, a single reading is neither sufficient to satisfy a mind, that has a true taste for this sort of writing ; nor can we make the fullest and best improvement of them, without proper reviews, and that in our retirement as well as in company. Among these writings of the latter kind, we may justly reckon *short miscellaneous essays* on all manner of subjects ; such as the *Occasional Papers*, the *Tattlers*, the *Spectators*, and some other books, that have been compiled out of the weekly or daily products of the press. Among other books, which are proper and requisite, in order to improve our knowledge in general, or our acquaintance with any particular science, it is necessary that we should be furnished with *vocabularies and dictionaries of several sorts*, namely, of *common words, idioms, and phrases*, in order to explain their sense ; of *technical words, or the terms of art*, to show their use in arts and sciences ; of *names of men, countries, towns, rivers, &c.*, which are called *historical and geographical dictionaries, &c.* *These are to be consulted and used upon every occasion*. If such books are not at hand, you must supply the want of them, as well as you can, by consulting such as can inform you." *Watts on the Mind*, pp. 59, 69, 71, 72.

"A wise and good man was accustomed, in his devotion, to thank God for books. He did well ; *good books, rightly used*, are among our greatest blessings. Books introduce us to the noblest minds of our race, and permit us to commune intimately with them, even at those privileged hours, when they obtain their brightest visions of truth, and pour forth their loftiest or most touching eloquence. It must be remembered, however, that *all books are not good books*, and that *even good books may be so read, as to fail of their appropriate ends*. Milton has said, that 'a wise man can sooner gather gold out of

the drossiest volume, than a fool, wisdom out of Scripture.' It is certain that the effect of reading depends nearly as much on the disposition and taste of the reader, as on the character of the writer. Hence the great importance of considering not only *what* we read, but also in what *way*, and for what *ends*. A love of books can be acquired only by those who find pleasure in using them ; and hence, whoever would cultivate in himself or others this most desirable taste, *should select, especially at first*, such works as can be read with sustained and quickened attention. But let it not be forgotten, that *such* books, if read *only to amuse* and entertain, must, if *good*, *fail* of much of their effect, while, if *bad*, *their influence will be deplorable*. By degrading them into instruments of momentary pleasure, we shall lose sight of their true worth, and learn to confound them with that herd of books, usually known as 'light reading ;' books which seem to have been written in order to be *once read*, and then *forever forgotten*. Soon, too, we shall disrelish all books than contain any serious matter, and be content only with those of the most frivolous and exciting kind. These last will claim every hour that can be allotted to *reading* ; and happy shall we be, if they do not *steal hours that ought to have been given to study*. To this danger we are peculiarly exposed in our own day. We should choose books that will exercise the faculty of close and continuous *attention*, and as we advance, we should subject it to the necessity of more strenuous and protracted effort. They should be books, too, which require us to *think* ; which sometimes incline us to close our volume, that we may review the arguments and statements of the writer, and test them by the rules of sound reasoning ; books, which call us to analyze what is complicated, to arrest what is fugitive, and trace out what is subtle ; which suggest new subjects for reflection and inquiry, and gradually lead us to appreciate and enjoy the pleasure that results from the mere exercise of our intellectual powers. So, again, in regard to *taste*. All men have been endowed, though in different degrees, with a relish for what is beautiful or perfect of its kind. Hence, books, as well as companions, should be *selected with reference to the cultivation*, not only of the understanding, but also of the taste. And in this respect we are exposed to much danger. Not a few of the works of our day (especially those of a fictitious and periodical character—works, too, which command enthusiastic applause,) are directly calculated to encourage a false taste in literature, as well as a vicious tone in manners and morals. What is true of intellect and taste is not less true of our *moral sentiments*. And, as our moral judgments, moreover, are insensibly but powerfully affected by companions, so are they by books—companions, against whom we are apt to be least on our guard, whose instructions we are disposed to receive with a too implicit faith, and whose society we enjoy at those seasons of relaxation, when the heart is most open to influence. It is nearly an axiom, that people will not be better than the books they read. It is important that all books be proscribed, which inculcate indifference to moral distinctions ; which tend, however indirectly, or insidiously, to excite our evil passions ; which exhibit the guilty and profligate as objects of sympathy and admiration ; or which serve to lessen, in the least, our reverence for principle, or our hatred of a mean and time-serving policy. In thus explaining the objects which ought to be kept in view in reading, I have, in effect, furnished rules for judging of books, of their character and value. If *one great end of reading* be to enlarge our knowledge, then we should, for the most part, read no books which do not *furnish useful information*. I say, *for the most part*, because we *sometimes* read rather to improve taste, quicken and cultivate imagination, or discipline reason, rather than to gain knowledge. Hence *another rule*, by which we may try a book, is *the effect it has upon the understanding*. Does it require thought, and excite to reflection ? Does it deal in *sound reasoning* only, avoiding all specious fallacies, and making no appeals to mere prejudice or passion ? Does it cultivate in our minds a disinterested *love of truth* ? If, on the other hand, it be a *work of imagination or taste*, it should be tried by *its influence on the sensitive part of our nature*. If it pre-

sent us with images of beauty and simplicity, enable us to view the works of nature and art, with a keener and more discriminating relish, inspire us with a love for the perfect, and, above all, if it strengthen and animate our noble sentiments of virtue, it merits frequent and careful perusal. But, *if otherwise, &c.*, I need not add, that it is a book to be reprobated and avoided.

WHAT SHOULD WE READ? Only good books; which Milton describes as 'the precious life-blood of master-spirits, embalmed and treasured up on purpose to a life beyond life.' To know whether a book be good, consider, 1st, whether it adds to our sum of knowledge: 2ndly, whether it induces thought, and exercises reason: 3dly, whether it improves taste: and 4thly, whether it strengthens conscience.—*Dr. Potter: Advantages of Science*, pp. 9—12, 22—27, 31.

"Read *always the best and most recent book on the subject which you wish to investigate*. 'You are to remember,' says Pliny the younger, 'that the most approved authors of each sort are to be carefully chosen, for, as it has been well observed, though we should *read much*, we should not *read many authors*.'"—*Dr. Potter: Handbook for Readers*, p. 18.

6. SYSTEMATIC READING; OR READING IN COURSES, OR BY SUBJECTS.

"Some prejudice, against what are called courses of study, has been justly provoked by the great number and variety of those which have been proposed from time to time. At the outset, *almost any course of reading* is better than the desultory and irregular habits which prevail so extensively. When once the student has acquired a taste for good books, and some just ideas of the object and uses of reading, he may be safely left to glean for himself, from the counsels of others, such hints and directions as are best adapted to his own case. Do not become so far enslaved by any system or course of study, as to think it may not be altered, when alteration would contribute to the healthy and improving action of the mind. Beware, on the other hand, of *frequent changes* in your *plan* of study. This is the besetting sin of young persons. 'No, take your course wisely, but firmly,' says Wirt, 'and having taken it, hold upon it with heroic resolution, and the Alps and Pyrenees will sink before you. The whole empire of learning will be at your feet, while those who set out with you, *but stopped to change their plans*, are yet employed in the very profitable business of changing their plans. Let your motto be, *Perseverando vinces*, (*by perseverance thou shalt conquer*.) Practice upon it, and you will be convinced of its value, by the distinguished eminence to which it will conduct you.' Study *subjects*, rather than books; therefore, compare *different authors* on the *same subjects*; the *statements* of authors, with information collected from *other sources*; and the conclusions drawn by a writer with the rules of sound logic. 'Learning,' says Feltham, 'falls far short of wisdom; nay, so far that you scarcely find a greater fool than is sometimes a mere scholar.' 'I take care,' says one of the profoundest and most versatile scholars in England, as quoted by Mr. Warren, in his *Law Studies*, 'always to ascertain the value of what I look at, and if satisfied on that score, I most carefully stow it away. I pay, besides, frequent visits to my 'magazine,' and keep an inventory of at least every thing important, which I frequently compare with my stores. It is, however, the *systematic disposition and arrangement* I adopt, which lightens the labors of memory. I was by no means remarkable for memory, when young; on the contrary, I was considered rather defective on that score.' *Dare to be ignorant of many things*. 'In a celebrated satire, (*the Pursuits of Literature*) much read in my youth,' says Dr. Quincy, 'and which I myself read about twenty-five years ago, I remember one counsel there addressed to young men, but, in fact, of universal application. I call upon *them*, said the author, to *dare* to be ignorant of many things; a wise counsel and justly expressed. A good scheme of study will soon show itself to be such by this one test, that it will exclude as powerfully as it will appropriate; it will be a *system* of repulsion no less than of attrac-

tion; once thoroughly possessed and occupied by the deep and genial pleasures of one truly intellectual pursuit, you will be easy and indifferent to all others that had previously teased you with transient excitement."—*Dr. Potter: Handbook for Readers*, pp. 15—18, 20, 21.

"In learning any new thing, there should be as little as possible first proposed to the mind at once. That being understood, and *fully mastered*, proceed to the *next* adjoining part, yet unknown. This is a slow, but safe and sure way to arrive at knowledge. The mind will be able, in this manner, to cope with great difficulties, and prevail over them, with amazing and happy success. . . . Engage not the mind in the intense pursuit of too many things at once; especially, such as have no relation to one another. This will be ready to distract the understanding, and hinder it from attaining *perfection in any one subject of study*. . . . In the pursuit of every valuable subject of knowledge, keep the end always in your eye, and be not diverted from it by every petty trifle you meet with in the way. . . . Be not satisfied with a mere knowledge of the best *authors*, that treat of any subject, instead of acquainting yourselves *thoroughly with the subject itself*."—*Dr. Watts on the Mind*, pp. 131—133, 72.

7. READING CONJOINED WITH THINKING.

• Deal freely with every author you read; and yield up your assent only to evidence and just reasoning on the subject. . . . In the compositions of men, remember, you are a man as well as they; and it is not their reason, but your own, that is given to guide you, when you arrive at years of discretion. . . . Enter into the sense and argument of the authors you read; examine all their proofs, and then judge of the truth or falsehood of their opinion. . . . You will acquire by degrees a habit of judging justly, and of reasoning well, in imitation of the good writer, whose works you peruse. . . . Never apply yourself to read any human author, with a determination beforehand either for or against him; nor with a settled resolution to believe or disbelieve, to confirm or to oppose whatever he says; but always read with design to lay your mind open to truth, and to embrace it, as well as to reject every falsehood, though it appears under ever so fair a disguise. . . . Never let an unknown word pass in your reading, without seeking for its meaning. . . . And, indeed, how many volumes soever of learning a man possesses, he is still deplorably poor in his understanding, till he has made these several parts of learning his own property, by reasoning, by judging for himself, and remembering what he has read.—*Dr. Watts on the Mind*, pp. 61, 62, 66, 67, 72, 73.

"Says Locke, 'Reading furnishes the mind only with *materials* of knowledge; it is *thinking* that makes what we read *ours*.' . . . Says Dugald Stewart, 'nothing, in truth, has such a tendency to *weaken*, not only the powers of invention, but the intellectual powers in general, as a habit of *extensive and various reading without reflection*.' . . . Accustom yourself to refer whatever you read to the general head to which it belongs, and trace it, if a *fact*, to the *principle* it involves or illustrates; if a *principle*, to the *facts* which it produces or explains."—*Dr. Potter: Handbook for Readers*, pp. 16, 17, 19.

"*Reading, to be useful, should be combined with reflection*. Books can afford but little improvement to those who do not *think as well as read*. . . . Thus we see the great necessity of reading with deliberation; and may I not add, that in this respect, *laboring people*, and those whose pursuits give to them almost constant engagement, *have advantages which they are not apt to appreciate*. By reading at intervals, some portion of a good book, and then carrying the matter with them to their places of business, as a subject for thought and conversation, they will soon discover that the subject grows upon them in interest, that their views insensibly become clearer and more enlarged, and that useful reflections, not suggested by the author, rise before their minds. And thus it is, that men of active pursuits are more apt, as all expe-

science testifies, to accumulate useful knowledge, than those whose lives are passed in leisure and in the midst of books. . . . Let me advise, then, that books be read deliberately. The old maxim, that 'if a thing be worth doing at all, it is worth doing well,' is peculiarly applicable to reading. A book run over hastily, is rarely understood; if not understood, it is not remembered; and if not remembered, the time spent in reading it is lost. . . . By deep and diligent meditation, we (should) acquire something which may truly be called our own; for, as Milton says:—who reads

‘Incessantly, and to his reading brings not
A spirit and judgment equal or superior.
Uncertain and unsettled still remains,
Deep versed in books, but shallow in himself.’ ”

Dr. Potter: Advantages of Science, pp. 17, 18, 27, 30.

8. SOCIAL OR CLASS READING.

‘If three or four persons agree to read the same book, and each brings his own remarks upon it, at some set hours appointed for conversation, and they communicate, mutually, their sentiments on the subjects, and debate about it in a friendly manner, the practice will render the reading of any author more abundantly beneficial to every one of them. . . . If several persons engaged in the same study, take into their hands distinct treatises on one subject, and appoint a season of communication once a week, they may inform each other in a brief manner, concerning the sense, sentiments and method of those several authors, and thereby promote each other’s improvement, &c. . . . Talking over the things which you have read to your companions, on the first proper opportunity, is a most useful manner of review or repetition, in order to fix them upon the mind. Teach them to your younger friends, in order to establish your own knowledge, while you communicate it to them.”—*Dr. Watts on the Mind, pp. 60 61, 178.*

“ ‘Company and conversation,’ says Feltham, ‘are the best instructors for a noble nature.’ ‘An engagement and combating of wits,’ says Erasmus, ‘does, in an extraordinary manner, both show the strength of geniuses, rouses them and augments them. If you are in doubt of any thing, do not be ashamed to ask, or, if you have committed an error, be corrected.’”—*Dr. Potter: Handbook for Readers, p. 19.*

“ ‘Some books should be read in company with others, especially with our family. We never relish a good book so highly as when we read it with a friend of congenial tastes. . . . And in this plan of social reading, what friends so proper as those of our household! What employment more appropriate for the domestic circle, than one which causes the minds of all to move in unison, thus strengthening the ties of mutual affection, and causing us to associate with home, the remembrance of our intellectual pleasures! . . . It will not be easy to preserve the good old practice of collecting our families around the cheerful fire, and teaching them to relish early the home-bred delights of affection, and of a common intercourse with those best and most improving visitors, good books.” *Dr. Potter: Advantages of Science, pp. 27, 29.*

9. RE-READING OR REVIEWING.

“ ‘A frequent review and careful repetition of the things we would learn, and an abridgment of them in a narrow compass, has a great influence to fix them in the memory. . . . Repetition is so very useful a practice, that Winemason, even from his youth to his old age, never read a book without making some small points, dashes, or hooks in the margin, to mark what parts of the discourse were proper for review; and when he came to the end of a section or chapter, he always shut his book, and recollected all the sentiments or expres-

sions he had marked, so that he could give a tolerable analysis and abstract of every treatise he had read, just after he had finished it. Hence he became so well furnished with a rich variety of knowledge."—*Dr. Watts on the Mind*, p. 177.

"Strive, by frequent reviews, to keep your knowledge *always at command*. 'What booteth,' says an old writer, 'to read much, which is a weariness to the flesh ; to meditate often, which is a burden to the mind ; to learn daily, with increase of knowledge, when he is *to seek* for what he *hath* learned, and perhaps *then*, especially, when he *hath* most need thereof ? Without this, (reviewing) our studies are but lost labor.' "—*Dr. Potter : Handbook for Readers*, p. 20.

"I would recommend, that when we become acquainted with a truly good book, we *read it often*. Cecil tells us that he had a '*shelf for tried books* ; books, which he could never open without being incited to reflection, and enriched by some new hint or principle. It should be so with all of us. *A few books properly selected and faithfully read, would suffice to yield us more, both of pleasure and profit, than any number, however great, taken at random, and read, as they usually are, in a hurried and unreflecting manner.* A book, moreover, which deserves the praise of being good, has cost its author efforts which cannot be appreciated at a single reading."—*Dr. Potter : Advantages of Science*, p. 29.

10. READING CONNECTED WITH WRITING.

"For want of retiring and writing, many a learned man has lost several useful meditations of his own, and could never recall them. . . . If a book has no index nor good table of contents, it is very useful to make one as you are reading it. . . . It is sufficient in your index, to take notice only of those parts of the book which are new to you, or which you think well written, and well worthy of your remembrance or review. Shall I be so free as to assure my younger friends, from my own experience, that these methods of reading will cost some pains in the first years of your study, and especially in the first authors, which you peruse in any science, or on any particular subject ; but the profit will richly compensate the pains. And in the following years of life, after you have read a few valuable books on any special subject in this manner, it will be very easy to read others of the same kind ; because you will not usually find very much new matter in them, which you have not already examined. If the writer be remarkable for any peculiar excellencies or defects in his style or manner of writing, make just observations upon this also ; and whatever ornaments you find there, or whatever blemishes occur in the language or manner of the writer, you may make just remarks upon them. And remember, that one book, read over in this manner, with all this laborious meditation, will tend more to enrich your understanding, than skimming over the surface of twenty. . . . It is useful to *note down matters of doubt and inquiry*, and take the first opportunity to get them resolved either by persons or books. . . . Lawyers and Divines write down short notes or hints of the principal heads of what they desire to commit to memory, in order to preach or plead. . . . The art of *short hand* is of excellent use for this, as well as other purposes. . . . Those who scarcely ever take a pen in their hands to write short notes or hints of what they are to learn, need a double degree of power to *retain* or recollect what they read or hear."—*Dr. Watts on the Mind*, pp. 42, 64, 65, 72, 178.

"Nor is it merely to the philosopher, who wishes to distinguish himself by his discoveries, that *writing affords an useful instrument of study*. Important assistance may be derived from it by all those who wish to impress on their minds the investigations which occur to them *in the course of their reading*."—*Dugald Stuart : Philos. of the Mind*, Vol. 1, p. 312.

"Seek opportunities to *write and converse* on subjects about which you

read. '*Reading*,' says Bacon, 'maketh a *full man, conference, a ready man, and writing, an exact man.*'"—*Dr. Potter: Hand Book, &c.*, p. 19.

"I add one more suggestion in the words of another. Young persons especially, will pardon the suggestion, that *in no way*, perhaps, can their store of applicable knowledge be more certainly, though at first almost imperceptibly, increased, than *by habitually reading with a pen in the hand*. There is much good sense in these doggerel verses, for which we are indebted to no ordinary thinker."

"In reading authors, when you find
Bright passages that strike your mind,
And which, perhaps, you may have reason
To think on at another season,
Be not contented with the sight,
But take them down in black and white;
Such a respect is wisely shown,
As makes *another's sense one's own.*"

Dr. Potter: Advantages of Science, p. 30.

11. METHOD OF READING—GENERAL HINTS AND DIRECTIONS.

"*Books of importance* of any kind, and especially *complete treatises* on any subject, should be *first* read in a *more general* and cursory manner, to learn a little what the treatise promises, and what you may expect from the writer's manner and skill. And for this end, I would advise always, that *the preface be read*, and a survey taken of the *table of contents*, if there be one, *before* this first survey of the book. By this means, you will not only be better fitted to give the book the first reading, but you will be much assisted in your second perusal, *which should be done with greater attention and deliberation*; and you will learn with more ease and readiness what the author pretends to teach. In your reading, mark what is new or unknown to you before; and review those chapters, pages, or paragraphs. . . . Other things, also, of the like nature may be usefully practiced with regard to the authors which you read. If *the method of a book be irregular*, reduce it into form by a *little analysis of your own*, or by *hints in the margin*; if those things are *heaped together* which should be separated, you may *wisely distinguish* and divide them. If several things relating to the same subject are *scattered up and down separately* through the treatise, you may bring them all to *one view*, by *references*; or if the *matter of a book be really valuable and deserving*, you may throw it into a better *method*, reduce it to a more logical scheme, or abridge it into a lesser form. All these practices will have a tendency both to advance your skill in logic and method, to improve your judgment in general, and to give you a fuller survey of that subject in particular. When you have finished the treatise, with all your observations upon it, recollect and determine what real improvements you have made by reading that author. . . . Endeavor to apply every speculative study, as far as possible, to *some practical use*, that *both yourself and others may be the better for it.*"—*Dr. Watts*, pp. 59, 64, 139.

"Always have some useful and pleasant book ready to take up in 'odd ends' of time. A good part of life will otherwise be wasted. 'There is,' says Wyttenbach, 'no business, no avocation whatever, which will not permit a man who has an *inclination* to give a little time every day to the studies of his youth. . . . Be not alarmed because *so many* books are recommended. They are not all to be read at once, nor in a short time. 'Some travelers,' says Bishop Hall, '*have more shrunk at the map than at the way*; between both, how many stand still with their arms folded.' . . . Do not attempt to *read much or fast*. 'To call him *well read*, who reads *many authors*,' says Shaftsbury, 'is improper.' 'It does not matter,' says Seneca, '*how many*, but *how good books* you have.' . . . Endeavor to find opportunities to *use your knowledge*, and apply it in practice. 'They proceed right well in all know-

ledge,' says Bacon, 'which do *couple* study with their practice, and do not first study altogether, and then practice altogether.'—*Dr. Potter: Hand Book, &c.*, pp. 16, 20.

"How SHOULD WE READ? First, thoughtfully and critically; secondly, in company with a friend or with our family; thirdly, repeatedly; fourthly, with pen in hand."—*Dr. Potter: Advantages of Science*, p. 31.

12. EFFECTS OF BOOKS—INFLUENCE OF AUTHORS.

"Wherefore should not the literary character be associated in utility or glory with the other professional classes of society? The commercial prosperity of a nation inspires no renovation in mankind; nor will its military power with their affection. There is an interchange of opinions, as well as of spices and specie, which induces nations to esteem each other; and there is a glorious succession of authors, as well as of seamen and soldiers, forever standing before the eyes of the universe. It is by our authors that foreigners have been taught to subdue their own prejudices. The small cities of Athens and of Florence will perpetually attest the influence of the literary character over other nations; the one received the tributes of the mistress of the universe, when the Romans sent their youth to be educated at Athens; while the other, at the revival of letters, beheld every polished European crowding to its little court. Those who govern a nation, cannot at the same time enlighten them;—authors stand between the governors and the governed. The single thought of a man of genius has sometimes changed the dispositions of a people, and even of an age. When Locke and Montesquieu appeared, the old systems of government were reviewed; the principles of legislation were developed; and many changes have succeeded, and are still to succeed. Observe the influence of authors in forming the character of men, where the solitary man of genius stamps his own on a people. The habits, the precepts, &c., of Dr. Franklin imprinted themselves on his Americans; while the elegant tastes of Sir William Jones could inspire the servants of a commercial corporation to open new and vast sources of knowledge. While Britain retains her awful situation among the nations of Europe, the 'Sylva' of Evelyn will endure with her triumphant oaks. In the third edition of that work, the heart of the patriot exults at its results. He tells Charles I. 'how many millions of timber trees, besides requisite others, have been propagated and planted at the *instigation, and by the sole direction of this work*. It was an author in his studious retreat, who, casting a prophetic eye on the age we live in, secured the late victories of our naval sovereignty. Inquire at the Admiralty how the fleets of Nelson have been constructed, and they can tell you that it was with the oaks which the genius of Evelyn planted. The same character existed in France, where De Lerres, in 1599, composed a work on the cultivation of mulberry trees, in reference to the art of raising silk-worms. He taught his fellow-citizens to convert a leaf into silk, and silk to become the representative of gold. A work in France, under the title of 'L'Ami des Hommes,' first spread there a general passion for agricultural pursuits; and although the national ardor carried all to excess, yet marshes were drained, and waste lands inclosed. . . . The commercial world owes to two retired philosophers, in the solitude of their study, Locke and Smith, those principles which dignify trade into a liberal pursuit, and connect it with the happiness of a people. . . . In the history of genius, there is no chronology, for to us everything it has done is present; and the earliest attempt is connected with the most recent. My learned and reflecting friend, (Sharon Turner, Esq.,) whose original researches have enriched our national history, has thus observed on the character of Wickliffe:—'To complete our idea of the importance of Wickliffe, it is only necessary to add that as his writings made John Huss the Reformer of Bohemia, so the

writings of John Huss led Martin Luther to be the Reformer of Germany ; so extensive and so incalculable are the consequences which sometimes follow from human actions.' Our historian has accompanied this, by giving the very feelings of Luther in early life on his first perusal of the works of John Huss ; we see the spark of creation caught at the moment ; a striking influence of the generation of character ! Thus a father-spirit has many sons. Such are the ' great lights of the world,' by whom the torch of knowledge has been successively seized, and transmitted from one to the other. . . . The torch of genius is perpetually transferred from hand to hand amidst this fleeting scene."

D'Israeli's Literary Character, &c. ; Alexandrian edition, pp. 444, 446.

13. EARLY READING—FIRST STUDIES.

The serious caution and conscientious watchfulness to be exercised by parents and friends, in the selection of books for the young, and for those who have not been accustomed to reading, (on the minds of both which classes, vivid and permanent, and therefore most important impressions will necessarily be produced by the authors recommended,) are forcibly suggested by the illustrations which follow. The practical teachings of these examples make it proper that they should have the place of emphasis and chief effect, at the close of our collations.

" The first studies form an epoch in the history of genius, and unquestionably have sensibly influenced its productions. Often have the first impressions stamped a character on the mind adapted to receive one, as often the first step into life has determined its walk. An early attachment to the works of Sir Thomas Browne produced in Johnson an excessive admiration of that Latinized English, which violated the native graces of the language. The first studies of Rembrandt affected his after labors ; that peculiarity of shadow which marks all his pictures, originated in the circumstance of his father's mill receiving light from an aperture at the top, which habituated that artist afterwards to view all objects as if seen in that magical light. When Pope was a child, he found in his mother's closet a small library of mystical devotion ; but it was not suspected till the fact was discovered, that the effusions of love and religion poured forth in his *Eloisa*, were derived from the seraphic raptures of those erotic mystics, who to the last retained a place in his library among the classical bards of antiquity. The accidental perusal of Quintus Curtius first made Boyle ' in love with other than pedantic books, and conjured up in him,' as he expresses it, ' an unsatisfied appetite of knowledge ; so that he thought he owed more to Quintus Curtius than did Alexander.' From the perusal of Rycaut's folio of Turkish history in childhood, the noble and impassioned bard of our times, (Lord Byron,) retained those indelible impressions which gave life and motion to the '*Giaour, the Corsair and Alp.*' A voyage to the country produced the scenery. . . . The influence of first studies, in the formation of the character of genius, is a moral phenomenon, which has not sufficiently attracted our notice. Dr. Franklin acquaints us that when young and wanting books, he accidentally found De Foe's '*Essay on Projects,*' from which work impressions were derived which afterwards influenced some of the principal events of his life. . . . Such is the influence through life of those first unobserved impressions on the character of genius, which every author has not recorded." Such, too, in a greater or less degree, is the influence of first impressions on all minds. As the impressions can never be obliterated, the influence is to last forever.—See *D'Israeli's Literary Character, &c. ; Alexandrian edition, p. 412.*

PLAN OF READING RECOMMENDED BY THOMAS S. GRINKE.

1. Before I commenced an author, I made myself thoroughly master of *the whole scheme of his work*, (if a table of contents and chapters enabled me to do so,) of the character of his whole system, of the *principles* on which he had separated and arranged the parts, and of their relation to each other, and to the whole. 2. I then studied the author in the following manner. After reading the first sentence, I meditated on it, developing the author's thought, as well as I was able; and reducing the whole, as nearly as possible, to a single, distinct, concise expression. I then read the second sentence, and did the same: and next compared the two sentences together, meditating on them, and gathering out of them their substance. Thus I went through the paragraph, and then reflected on the whole, until I had reduced it to a single sentence, containing its essence. I then studied the next paragraph in like manner: and having finished it, I compared the two together, and gathered out of them their substance. The same plan was followed in the comparison of sections with sections, chapters with chapters, books with books, until the author was finished. This may appear, at first sight, an exceedingly tedious process; but any one, acquainted with the nature of the mind, knows the wonderful facility that would soon be acquired by a faithful, patient adherence to this mode of study, even through a single chapter. 3. A third rule was to pass nothing unexamined, nothing without reflection, whether in poetry or fiction, history or travels, politics, philosophy, or religion. Gratitude will not allow me to pass unnoticed the vast advantages derived from a humble, patient, thankful perusal of Watts' admirable book on the Improvement of the Mind. Nor ought I to omit the three rules of Professor Whitaker, of Cambridge, given to John Boyse, one of the eminent translators of the Bible in the time of James the 1st, to study chiefly standing or walking, never to study at a window, and not to go to bed, on any account, with cold feet.

It is an error to suppose that a course of study is confined to the period of *youth*, and that when a young man has left school or college, he has finished his education, and has nothing to study but his profession. In truth he has done little more than treasure up some of the important materials, and acquire the elementary habits and discipline, which are indispensable to the continued improvement of his mind. If he expects to be a scholar, not in the *literary* sense of the word, but in a far higher and nobler sense, as a Christian, patriot, philanthropist, and public servant, in the state or national councils, in literary, benevolent, and religious institutions; if he means to be distinguished for his sense of duty, and his spirit of usefulness, for just principles, enlarged views, dignified sentiments and liberal feelings, for sound thinking, and clear, close reasoning, let him be assured that he has done little more than lay the foundations, in the school, or even in the college, up to the age of twenty. He must make up his mind to be a devoted student, in spite of his professional engagements, for ten years at least; until he shall have been able to deepen and strengthen, and enlarge, and elevate his mind, so as to fit himself for solid, honorable, permanent usefulness. Let him remember, that the *school* only prepares the *youth* to enter on the course of study, appropriate to the *young man*: and that the *college* only enables the *young man* to enter on the course of study appropriate to the *man*. Manhood has its appropriate course of study, and the difference between men arises very much from their selection and pursuit of a right course of study. Many fine minds, capable of enlarged and durable improvement and usefulness, are lost every year to the community, in which their lot is cast, to the country they are bound to serve, to the cause of religion, humanity, justice and literature: because they have failed in this great duty, they have neglected the course of study, appropriate to manhood. And here let it be remarked, that the *true* student never considers how much he reads, but rather how *little*, and only *what* and *how* he reads.—*Grimke on Science, Education, and Literature*, p.p. 54-56.

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3. PHYSICAL EDUCATION AND PHYSIOLOGY.

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4. SELF-EDUCATION.

Lectures to Young Men	<i>Beecher, Rev. Henry Ward</i>	1355
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Memoirs of a Working Man.....	<i>Knight, C. (ed.)</i>	834
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New American Orchardist.....	Kenrick, William.....	1537
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American Poulterer's Companion.....	Bement, C. N.....	1361
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Stable Economy.....	Stewart, J. (A. B. Allen, ed.)	1533
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Observations on the Art of Painting.....Du Fresnoy, Charles A... ..	1484
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Discourses and Works on the Fine Arts, 3 vols. <i>Reynolds, Sir Joshua</i>	756-58
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Aids to Reflection	<i>Coleridge, Samuel Taylor</i> .	1164
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History of Intellectual Philosophy, 2 vols.	<i>Henry, C. S.</i>	507-08
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Progress of Ethical Philosophy during the 17th and 18th Centuries	<i>Mackintosh, Sir James</i> ...	1450
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Wealth of Nations, 2 vols.	<i>Smith, Adam</i>	143-144
Elements of Political Economy	<i>Wayland, Francis</i>	1586

XVI. PHYSICAL SCIENCES AND MATHEMATICS.

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Objects, Advantages, and Pleasures of Science. <i>Brougham, Henry, Lord.</i> ..		459
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Glance at the Sciences	<i>Goodrich, S. G.</i>	895
Progress of Physical Science and Mathematics <i>Playfair, J.</i>		1801
Advantages of Science	<i>Potter, Alonzo</i>	459
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History of the Inductive Sciences, 3 vols.	<i>Whewell, W.</i>	1860-62
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Menageries—in 4 vols.	<i>Lib. of Ent. Knowledge</i> ..	1035-38
1. Menageries, Dogs, Wolves, Hyenas, Lions, Tigers, Camels, Llamas, Giraffes, Antelopes, Deer, Reindeer.		
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Geology of Rhode Island	<i>Jackson, Charles T.</i>	1426
“ and Mineralogy of Africa.....	<i>Jameson, Prof. R.</i>	351
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“ Elements of, 2 vols.	<i>Lyell, Charles</i>	1161-62
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“ Wonders of, 2 vols.....	<i>Mantell, Gideon Algernon.</i>	753-754

6. BOTANY AND VEGETABLE PHYSIOLOGY.

Elements of Vegetable Physiology	<i>Carpenter, W. B.</i>	1291
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Organization, Structure, &c., of Plants.....	<i>Davy, Sir Humphrey</i>	423
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" Substances used for the Food of Man Soc. Useful Kn., Pub. by .		392
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For numerous and very valuable articles on all the preceding topics of Religion, Law, Education, Agriculture, Arts and Sciences, Natural History, &c., as also on the succeeding topics of the History of different portions of the world, the reader is referred to this last-mentioned comprehensive Encyclopedia of Popular Knowledge.

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Philosophy of Magic, 2 vols(ed. <i>A. T. Thompson</i>)	<i>Salverte, Eusebe</i>	600-601
Engineer's and Mechanic's Companion.....	<i>Scribner, J. M.</i>	1018
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" Mechanics.....	" "	868
Importance of Scientific Knowledge to the Manufacturer and Practical Mechanic	<i>Verplanck, Gulian C.</i>	450
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" Rome,	<i>Schmitz, Leonhard</i> 1488

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(For notices of the Life, Writings, and Influence of many eminent men of different countries and periods, see, further, *ESSAYS, REVIEWS, SPEECHES, &c.*)

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BROWN UNIVERSITY,

Brown University was incorporated at the February session of the Legislature, in the year 1764, as "the College, or University in the English Colony of Rhode Island and Providence Plantations in New-England, in America; the Trustees and Fellows at any time hereafter giving such more particular name to the college, in honor of the greatest and most distinguished benefactor or otherwise, as they shall think proper." It was generally called "Rhode-Island College," till, in the year 1804, the present name was bestowed upon it by the Corporation in honor of the late Nicholas Brown, "its most distinguished benefactor"

The first meeting of the corporation under the charter, was held at Newport, on the first Wednesday of September, 1764, and the college was originally located in Warren, where the Rev. James Manning, a native of New Jersey, and a graduate at Princeton in 1660, who became pastor of the Baptist Church in Warren in 1763, had opened a Latin school in 1664. This school, on the appointment of Dr. Manning as President in 1765, became the germ of the college. The first commencement was held September 7th, 1769, "whereat was a great concourse of people, who openly professed their admiration of the performances of the young gentlemen," seven in number, who constituted the first graduating class of Brown University. On the 7th of February, 1770, the Corporation directed, by a vote of twenty-one to fourteen, that the first college "edifice be built in the town of Providence, and there be continued forever"—the County of Providence having outbid the other Counties of the State, and thus secured the location of the college within its limits.

By the Charter the Corporation of the college consists of thirty-six Trustees, and twelve Fellows. Of the thirty-six trustees, twenty-two must be Baptists; five Friends or Quakers: four Congregationalists, and five Episcopalians. Of the twelve Fellows, eight are to be Baptists, "and the rest indifferently of any or all denominations."

While the Charter thus secures to one denomination the government and instruction of the University, it makes provision against any undue sectarian influence over the minds of the youth who may resort here for their education. Thus the charter declares, "That into this liberal and catholic institution shall never be admitted any religious tests: But on the contrary all the members hereof shall forever enjoy full, free, absolute and uninterrupted liberty of conscience: And that the places of Professors, Tutors, and all other officers, the President alone excepted, shall be free and open for all denominations of Protestants: And that youth of all religious denominations shall and may be freely admitted to the equal advantages, emoluments, and honors of the College or University; and shall receive a like fair, generous, and equal treatment during their residence therein, they conducting themselves peaceably, and conforming to the laws and statutes thereof. And that the public teaching shall in general respect the sciences; and that the sectarian differences of opinion shall not make

any part of the public and classical instruction. Although all religious controversies may be studied freely, examined and explained, by the President, Professors and Tutors, in a personal, separate and distinct manner, to the youth of any or each denomination. And above all, a constant regard be paid to, and effectual care taken of the morals of the College."

In conformity with this, the laws of the University, which regulate the attendance on devotional exercises, thus provide: "The right of Christians of every denomination, to enjoy without molestation their religious sentiments, is fully allowed; nevertheless, as the public observance of the Sabbath is a moral duty, at the beginning of each term, every student shall designate to the President, or other officer named by him, some place of public worship which he chooses to attend, and he shall attend such place of worship on the forenoon and afternoon of every first day of the week."

The first college edifice, now known as University Hall, was commenced on the 26th of March, 1770, the corner stone being laid on the 14th of May following, by Mr. John Brown, who subscribed £300 towards the building.

The following sketch of the financial history of the institution, is taken from "*President Wayland's Discourse on the Life and Character of the Hon. Nicholas Brown*."

"Very soon after the establishment of the institution, a spirited effort was made throughout this country and in Europe to raise the funds necessary for its endowment. A sum quite considerable for those times was collected, principally through the agency of the Rev. Messrs. Morgan Edwards, Hezekiah Smith and John Gano. These funds were, however, almost entirely exhausted in erecting the building now known as University Hall, or in repairing the injuries which it had sustained while occupied as barracks and a hospital during the revolutionary war. At the close of this period, when the college was reorganized, the property of the institution consisted of but very little more than a single edifice for the accommodation of students, a house for the President, and the site, then somewhat extensive, on which they were erected. The library was exceedingly small, and its philosophical apparatus was scarcely deserving of the name.

Under these circumstances, the Rev. Dr Manning resumed his duties as President. The reputation of his name, and the wide extent of his personal influence, attracted, in a few years, a very respectable number of pupils. By his exertions, the library was considerably increased, some small additions were made to its funds, and a warm interest was awakened in its favor among all the Baptist churches throughout the Union. Still its progress, though perceptible, was slow. Its buildings did not increase, nor its means of instruction in any remarkable degree improve. Its friends were not generally wealthy, nor had they any adequate conviction of the importance of professional education to the church or to the world. It continued, from the close of the Revolution to the year 1804, to struggle under pecuniary difficulties, without the means of enlarging its foundations, or rendering more valuable the opportunities which it afforded for intellectual cultivation.

In the year 1796, Mr. Nicholas Brown was elected the Treasurer of the College. In this situation he had a full knowledge of its condition, and he soon directed his attention to its relief. Previously to the year 1804, he had presented it with a law library of considerable value. On the sixth of September of that year, he gave to the corporation the sum of five thousand dollars for the purpose of founding a professorship of Oratory and Belles Lettres. In the letter to the corporation proffering this endowment, he refers to his warm attachment to the College, as the place of his education and of that of his brother; and also from the recollection that his late honored father was among its earliest and most zealous patrons. In con-

sequence of this donation, it was at the same meeting of the corporation voted, 'that this College be called and known by the name of BROWN UNIVERSITY.'

For a series of years, under the Presidentship of the eloquent and accomplished Dr. Maxcy, and of the late Rev. Dr. Messer, a scholar of profound and varied learning, as well as an instructor of singular ability, this institution continued to advance with accelerated progress in usefulness and reputation. Its means of accommodation to the pupils who resorted hither for instruction, became at last wholly inadequate to the demand, and an additional edifice was absolutely necessary to its ulterior success. At this crisis, Mr. Brown came forward to its aid. In the year 1823, he erected, solely at his own expense, the second college building, which, at his suggestion, has since been known by the name of Hope College. In his letter to the corporation, on this occasion, he remarks, 'Believing that the dissemination of knowledge and letters is the great means of social happiness, I have caused this edifice to be erected, and now present it to this corporation to be held with their other corporate property, according to their charter.' He closes this letter with the devout hope, that 'Heaven will bless and make it useful in the promotion of virtue, science, and literature, to those of the present and future generations, who may resort to this University for education.'

The means for the accommodation of students were, by this act of munificence, more than doubled. Important deficiencies in the various departments of instruction remained yet to be supplied. The philosophical apparatus which had been purchased at different times, and most of it at a remote period, had become, from ordinary wear and accident, almost unfit for use. With the exception of a valuable astronomical clock, and an excellent transit instrument by Throughton, the gift of Mr. J. C. Brown and Mr. R. H. Ives, the whole of it was, I think, inferior to that which at present we frequently see in the possession of many of our high schools and academies. By the liberality of Mr. Brown and his brother-in-law, Mr. Thomas P. Ives, this department was at once placed in its present advantageous position. These gentlemen directed the faculty to order, at their expense, such a suit of apparatus, in all the departments of experimental science, as the wants of the University seemed to require. These instruments were received in the year 1829. The University was thus furnished at once with as ample means for philosophical illustration as almost any in our country, and superior, in fact, to those possessed by many similar institutions in Europe.

The library of the University, however, still remained in its primitive condition. It consisted, for the most part, of donations, which had been made in America and Great Britain, during the early history of the institution. Small appropriations from the general funds of the University had occasionally been made, in obedience to the demands of absolute necessity. These, however, only relieved particular and immediate wants. Nothing had yet been done to provide for its permanent and progressive enlargement, or to enable it to collect together the ever coming results of human thought, or put it in the power of the instructors to avail themselves of the intellectual treasures of past generations. The library room was an apartment in University Hall, crowded to excess, unsightly and inconvenient, and wholly unsuited for the purpose to which, from necessity, it was devoted. At this juncture, the friends of the Institution proposed to supply this great deficiency. A subscription was opened for the purpose of raising the sum of \$25,000, of which the interest was to be for ever appropriated to the increase of the library and the purchase of philosophical instruments. To this fund Mr. Brown gave the sum of \$10,000, and, in order to the perfect accomplishment of the object, erected, at his own expense, the beautiful edifice in which we are now assembled, for a library room and chapel. This fund, by subscription and accumulation of interest, has been raised to the sum originally proposed, and it is now conferring upon this University the rich benefits intended by its benevolent and public spirited contributors. To this edifice, Mr. Brown, in testimony of veneration for his former instructor, gave the name of Manning Hall. It was opened by

appropriate services in February, 1835. The amount given by Mr. Brown on this occasion, fell but little short of thirty thousand dollars.

These increasing facilities for instruction, however, only rendered more apparent the additional wants of the Institution. The departments of Physical Science and of natural Philosophy, under the superintendence of the distinguished gentlemen to whose care they are confided, had vastly increased in importance. Our collection of specimens in Geology, already rich and valuable, was rendered almost useless, from the fact that no apartment could be provided in which it could be displayed. The University was almost destitute of a Chemical laboratory, and the lecture rooms for the Professors of Chemistry and Experimental science, were small and inconvenient. The grounds in front of the University buildings, susceptible of great beauty, were rude and unimproved. It had for some years been manifest, that another effort was demanded in order to render in the fullest manner available the intellectual resources of which the University was already in possession.

Influenced by these considerations, Mr. Brown again came forward with his accustomed liberality. In a letter to the Treasurer, under the date of March 18, 1839, 'he tendered to the corporation, for the purpose of erecting a mansion for the President, and another College edifice for the accommodation of the departments of Natural Philosophy, Chemistry, Mineralogy, and Natural History, three valuable lots of land as sites for these buildings, and ten thousand dollars, namely, seven thousand dollars for the President's house, and three thousand dollars towards the erection of the College edifice, and the improvement of the adjacent grounds, provided an equal amount be subscribed by the friends of the Institution before the first of May next.'

To this appeal, the friends of the University, with great liberality and promptitude, cheerfully responded. Before the first of May the subscription was more than filled up. And it is with honest pride that I add, that the whole sum, with the exception of about six hundred dollars, was contributed by the citizens of Providence and its vicinity. The President's house, and the edifice now known as Rhode Island Hall, were immediately erected, and the latter was opened by an address by Mr. William G. Goddard, Professor of Belles Lettres, on the 4th of September, 1840. The grounds were graded and adorned, and the surrounding premises placed in the condition in which we now behold them.

Mr. Brown made to the University several bequests of land and other property, which as they become due, will materially aid in promoting the purposes of instruction."

In reference to the results which have begun to flow from the judicious liberality of Mr. Brown, President Wayland infers the true use of riches.

"An institution has here been founded, which we hope will continue to all future time to scatter abroad 'the benefits of science and the blessings of religion.' Its cheering influences have been already observed in the courts of justice and in the halls of legislation. Already has it swayed the senate by its eloquence, and illuminated the bench by its wisdom. Already has it contributed its humble share to the elevation of our national character, by the diffusion of virtuous and high-minded public sentiment. Nor is its effect less remarkable upon the pulpit. It has, in instances I had almost said without number, given to our churches a learned, intelligent, and pious ministry,—a ministry, which without its aid would have been obliged to labor on through life in ignorance and obscurity. To what extent it has thus enlarged the dominion of virtue and religion, you can conceive better than I can express. All this will, we hope, go on increasing to unnumbered generations. All this is, to a very great degree, the result of the use of a small portion of that wealth with which God had entrusted a single man. In what other way could it have been so appropriated as to yield so glorious a result? In what other manner can we so truly confer a benefit upon those that come after us? If you must leave to your children wealth, surround them, I beseech you, with an atmosphere of goodness, that shall protect them from temptation, and stimulate them by the force of your example, to still more noble deeds of virtue and benevolence."

Dr. Manning remained at the head of this institution as President, from its first organization until his death, in 1791. He was succeeded by the Rev. Jonathan Maxcy. In 1802, Dr. Maxcy resigned the presidency, and subsequently was elected President of Union College, Schenectady, which he afterwards resigned, and was chosen President of Columbia College, in South Carolina, which station he held until his death. The Rev. Asa Messer was elected President soon after the resignation of Dr. Maxcy. He held the office until 1826, when he resigned, and was succeeded by the present incumbent, the Rev. Francis Wayland, jr.

During Dr. Wayland's Presidency, the standard of scholarship and discipline has been raised—the number of volumes in the Library has been nearly trebled; two new Halls have been added to the College buildings, besides a house for the President; the Scientific apparatus, and Mineralogical Cabinets have been increased—the college grounds laid out, and the whole influence of the institution has been strengthened and improved as a seat of learning. All these things, from the beginning of the Institution, are the results of individual effort and liberality. The State, as such, has done nothing for the College. Without doing any thing for its endowment, the Legislature might do much by a small annual appropriation to make the benefits of its liberal course of instruction accessible to many poor, but worthy, and talented, youth of the State.

The following extract from the "*Laws of Rhode Island College*, enacted by the Fellows and Trustees, 1803"—will show the prescribed course of instruction from that date to 1827.

The following books shall be studied by the respective classes, &c.

In the first year shall be studied, in Latin, Virgil's *Æneid*, Cicero's *Orations* and *Horace*; in Greek, the New Testament and Xenophon's *Cyropædia*; in English, Sheridan's *Lectures on Elocution*, and Murray's *English Grammar*. In the second year, in Latin, Cicero's *de Oratore*; in Greek, Longinus's *de Sublimitate*; Guthrie's and Morse's *Geography*; *Decimal Arithmetic*, the *Extraction of the Square and Cube Roots*, Watts' *Logic*, Blair's *Lectures*, and Hammond's *Algebra*.

In the third year, Euclid's *Elements*, *Trigonometry*, with its application to *Surveying and Navigation*; Ferguson's *Astronomy*, Nicholson's *Natural Philosophy*, Payley's *Moral Philosophy*, and Kain's *Elements of Criticism*. In the fourth year, Locke's *on the Human Understanding*, Millot's *Elements of General History*, and such parts of the authors studied in the preceding years, as the officers of college shall direct.

The following particulars are gathered from the *Catalogue of the Officers and Students of Brown University*, 1848-9.

REQUIREMENTS FOR ADMISSION.

No person shall be admitted a member of the Freshman Class, unless he has completed his fourteenth year, nor to advanced standing, without proportional increase of age. He must bring satisfactory evidence of unexceptionable moral character, be thoroughly acquainted with the grammar of the Latin and Greek Languages, and be able to construe and parse any portion of the following books, namely: Jacob's, Felton's or Colton's *Greek Reader*, Cæsar's *Commentaries*, Virgil, Cicero's *Select Orations*, and to translate English into Latin and Greek correctly. He must also be well acquainted with ancient and modern *Geography*, *Arithmetic*, *English Grammar*, and with *Algebra*, as far as *Quadratic Equations*. To enter upon an advanced standing, he must, in addition, be thoroughly versed in all the preceding studies of the class to which he proposes to be admitted.

The Grammars used in College, are Kuehner's Greek, and Andrews and Stoddard's Latin Grammar. Candidates for admission will be subjected to a rigid examination in these, or in such other Grammars of the Latin and Greek Languages as they may have studied.

The regular examinations for entrance are held as follows: on the Saturday preceding Commencement, from nine, A. M., till one, P. M.; on the Monday preceding Commencement, from eight, A. M., till six, P. M.; on the Tuesday preceding and the Thursday following Commencement, from eight, A. M., till one, P. M. It is particularly desired that candidates for admission present themselves within the above specified hours. Premiums are awarded for excellence in preparatory studies, in accordance with rules made known on a subsequent page.

COURSE OF INSTRUCTION.

FRESHMAN CLASS.

First Term.

Plane Geometry,	Davies' Legendre.	Greek Prose,	Xenophon's <i>Historia Græca</i> .
Latin Prose,	Lincoln's <i>Liuy</i> .	Greek Grammar, reviewed.	
Latin Grammar, reviewed.		Exercises in writing Greek.	
Roman History,	Schmitz (<i>Andover Edition</i> .)		

Second Term.

Solid Geometry,	Davies' Legendre.	Exercises in writing Latin,	Arnold.
Latin Prose,	Lincoln's <i>Liuy</i> .	Greek Prose,	<i>Historia Græca</i> .
Roman History,	Schmitz.	Exercises in writing Greek.	

Third Term.

Algebra,	Davies' Bourdon.	Greek Prose,	<i>Memorabilia, or Historia Græca</i> .
Latin Prose, Cicero de <i>Amicitia</i> and de <i>Senectute</i> .		Exercises in writing Greek.	
Exercises in writing Latin.		Grecian History,	Lectures.

SOPHOMORE CLASS.

First Term.

Algebra completed,	Davies' Bourdon.	Exercises in writing Greek,
Exercises in writing Latin,	Arnold.	French.
Greek Prose,	Herodotus or Thucydides.	

Second Term.

Trigonometry, Plane and Spherical,	Davies' Legendre.	Exercises in Latin Prosody.	
Exercises in writing Greek.		Rhetoric,	Campbell.
Latin Poetry,	Horace.	French.	

Third Term.

Applications of Trigonometry to Mensuration of Heights and Distances, Surveying, Navigation, and Nautical Astronomy.		Rhetoric,	Campbell.
Latin,	Horace and Terence.	Greek Poetry,	Euripides or Sophocles.
Exercises in writing Latin,	Arnold.	French.	
		Analytical Geometry,	Davies.

JUNIOR CLASS.

First Term.

Mechanics,	Cambridge Course.	Latin,	Tyler's <i>Tacitus</i> .
Animal Physiology,	Agassiz and Gould.	Exercises in writing Latin.	
Logic,	Whately.		

Second Term.

Pneumatics and Hydrostatics, Cambridge Course.		Exercises in writing Latin,
Chemistry,	Johnston.	Calculus, (optional.)
Greek Poetry,	Homer.	

Third Term.

Optics,	Brewster.	Latin Poetry,	Johnson.
Applications of Chemistry,	Lectures.	Exercises in writing Latin.	
Vegetable Physiology,	Lectures.	Greek,	Homer or <i>Æschylus</i> .
Modern History,	Smyth's Lectures.		

SENIOR CLASS.

First Term.

Intellectual Philosophy, *Lectures*, and *Upham's* Modern History, . . . *Smyth's Lectures*.
Text Book. German or French.
 Astronomy, *Norton.*

Second Term.

Moral Philosophy, . . . *Wayland's Elements.* American History, . . . *Lectures*.
 Evidences of the Christian Religion, *Lectures.* Whately's Rhetoric, or German.
 Butler's Analogy.

Third Term

Political Economy, *Wayland.* American Constitution.
 Geology, *Lectures*, and *Lyell's Text Book.*

COURSES OF LECTURES

Are delivered on the following subjects :

First Term.—Intellectual Philosophy. Greek and Roman Literature. Animal Physiology. Mechanical Philosophy.

Second Term —Greek and Roman Literature. Chemistry. Rhetoric. Mechanical Philosophy. Evidences of the Christian Religion. American History.

Third Term.—Greek and Roman Literature. Optics. Electricity and Magnetism. Vegetable Physiology. Rhetoric. Geology.

It is required by the statutes of the University, that the above studies be pursued, and that the regular examinations in them be sustained, by every person who intends to become a candidate for the degree of Bachelor of Arts.

The Faculty are aware that these studies cannot be advantageously pursued, except by persons who have attained some degree of intellectual maturity. Such, however, they think must be the case with any course of discipline, intended really to lay the broad foundations of a liberal education, or to prepare young men for the learned professions. It might also be suggested, that individuals whose youth may disable them from pursuing the above studies with success, would do wisely to delay the commencement of a collegiate education to a somewhat later period. The arrangements of such a seminary as this, pre-suppose in the pupil some power of self-government, and some decidedly formed feelings of social and moral responsibility. Until the character of a young man be thus far formed, he is too young to enter a public institution.

ENGLISH AND SCIENTIFIC COURSE.

There has been established in the University, in connection with the regular Collegiate Course, an English and Scientific Course, designed for the benefit of those who do not propose to enter either of the learned professions, but who desire to prepare themselves, by a thorough education, for some one of the more active employments of life. This Course embraces every department of English study pursued in the University, together with the several branches of Mathematical and Physical Science; and moreover, opens to the student all the advantages of the Library, the Cabinet of Natural History, and the Courses of Lectures on Chemistry, Natural Philosophy, Physics, Intellectual Philosophy, and the Evidences of Christianity. It is believed that such a Course will furnish to those who are preparing for Mercantile pursuits, or for the higher employments of Agriculture and Manufactures, the means of securing, at a moderate expense, an education specially adapted to their wants. The Course is arranged for a residence of either one or two years, according to the wish of the student. The Studies for the Course of one year, are—

First Term. Plane Geometry, Animal Physiology, Modern History, Intellectual Philosophy, French, Lectures on Mechanics.

Second Term. Solid Geometry, Rhetoric, Chemistry, Moral Philosophy, French, Lectures on Mechanics.

Third Term. Rhetoric, Political Economy, Constitution of the United States, Surveying, Navigation, Mensuration of Heights and Distances, French, Lectures on Vegetable Physiology and Agriculture.

The Studies for the Course of two years, are—

FIRST YEAR.

First Term. Plane Geometry, Algebra, Animal Physiology, French.

Second Term. Solid Geometry, Trigonometry, Chemistry, Rhetoric, French.

Third Term. Surveying, Navigation, Mensuration of Heights and Distances, Rhetoric, History, French, Lectures on the Applications of Chemistry, Vegetable Physiology.

SECOND YEAR.

First Term. Mechanics, Astronomy, Intellectual Philosophy, Modern History, Logic.

Second Term. Mechanics, Moral Philosophy, Butler's Analogy, Rhetoric.

Third Term. Optics, Political Economy, Geology, Constitution of the United States, Lectures on Agriculture.

The above Courses, it will be seen, embrace a greater number of studies than can be advantageously pursued by the same individual, in the limited time allotted to them. The design is, to allow each student, aided by the advice of the Faculty, to select from the respective Courses such studies as shall be best fitted to prepare him for the particular pursuits in which he proposes to engage.

LIBRARIES.

The College Library is in Manning Hall, and at present contains upwards of 21,000 well-selected volumes. It is constantly increasing from the proceeds of a permanent fund established for this purpose. In addition to the College Library, the Libraries of the Philermenian and the United Brothers' Societies comprise together upwards of 6,000 volumes, making in all upwards of 27,000 volumes, accessible to all the students of the University.

CABINET.

The Cabinet, together with the apparatus of Chemistry and Natural Philosophy, is in Rhode-Island Hall, which is furnished with spacious Lecture Rooms for the accommodation of the departments of Mechanical and Physical Science. A collection of Specimens, for the purpose of illustration in Geology and Natural History, was commenced some years since, and furnishes valuable aid to the instruction in these sciences.

PREMIUMS.

In order to encourage deserving talent and to stimulate industry, the friends of the University, at different times, have made provision for the establishment of premiums, to be annually distributed to those students who attain to the highest excellence in the several departments of their collegiate course. More than four hundred dollars were distributed in this manner during the past year.

The premiums which have been thus established are as follows:

I. THE JACKSON PREMIUMS. *Founded by the Rev. Henry Jackson.* By this foundation a premium of the value of twenty-five dollars is annually awarded to the author of the best dissertation in Intellectual Philosophy; the same to the author of the best dissertation in Moral Philosophy; and the same to the author of the best dissertation in Political Economy. The competition for these premiums is limited to the undergraduates of the Senior Class, and no competitor can receive more than one premium.

II. UNIVERSITY PREMIUMS. By the statutes of this foundation, it is enacted that the following premiums shall be annually offered to the undergraduates of the several classes respectively.

I. In the Freshman Class. A first and a second premium for the best Latin composition.

A first and a second premium for the best Greek composition.

A first and a second premium for excellence in Mathematics.

II. In the Sophomore Class. A first and a second premium for the best Latin composition.

A first and a second premium for the best Greek composition.

A first and a second premium for excellence in the Mathematics.

One premium for the best English composition on the subject appointed.

III. In the Junior Class. A first and a second premium for excellence in Mechanical Philosophy.

A first and a second premium for the best English composition on the subject appointed

A first and a second premium for excellence in Physical Science.

One premium for the best composition in either the Latin or Greek language.

IV. In the Senior Class. A premium for excellence in Astronomy.

A premium for the best dissertation on a subject in history.

A premium for the best dissertation on a subject in Physical Science.

A premium for the best composition in either the Latin or Greek language.

The value of the first premiums in the Freshman and Sophomore Classes and of the premiums in English Composition is fifteen dollars, and that of the second premiums ten dollars each. The value of the first premiums in the Junior Class and of the premium for Latin or Greek composition is seventeen dollars, and of the second premiums fifteen dollars each. The value of the premiums in the Senior class is twenty dollars each.

Whenever the premiums offered to a class shall not have been awarded, the residue will be conferred on such deserving students of the other classes as may be recommended for this distinction by the Examining Committee.

The dissertations entered for premiums must be presented to the President on or before the last Saturday of the third collegiate term except those of the Senior Class, which must be presented on the day following their final examination.

The award of the premiums in Astronomy, Mechanical Philosophy, and Mathematics, will be determined by public examination; the award of the others by dissertations.

III. THE PRESIDENT'S PREMIUMS. The interest of one thousand dollars is annually appropriated in the President's Premiums. This class of premiums is awarded to those members of the Freshman Class who have attained the highest excellence in the studies preparatory to admission. They are fixed by the statutes as follows.

A premium of the value of fifteen dollars for the highest, and of ten dollars for the next to the highest attainment in the Greek language. A premium of fifteen dollars for the highest, and of ten dollars for the next to the highest attainment in the Latin language.

The names of the prize scholars are designated in the annual catalogue for the year in which they are awarded, together with the name of the teacher under whose instruction they have been prepared for College.

The examination for the President's premiums is held on the Saturday of commencement week, at nine o'clock, A. M.

INFORMATION FOR PARENTS AND GUARDIANS.

I. REGULATIONS AND DISCIPLINE. The *Regulations* of the Institution are formed with the single design of promoting the intellectual and moral advancement of its members. They are made public, and may be known by every candidate before admission. If at any time, a student becomes dissatisfied, he is at liberty immediately to withdraw, with every testimonial of scholarship and character to which he is entitled.

The *Discipline* of the Institution is intended to be strictly parental. The officers desire to cultivate with their pupils habits of kind and familiar intercourse, and to influence them rather by an appeal to the better principles of the heart, than by severe or disgraceful punishment. If, however, the

conduct of a student render it evident that he is not susceptible of such influence, he is immediately, and if possible, without disgrace, returned to his friends, in the hope that under other circumstances, he may yet form a character which will give promise of usefulness. Immoral or disorderly conduct, or habitual negligence in his attendance upon collegiate duties, is always considered a sufficient reason for directing a student to leave the Institution. If any student, after having completed the studies of any year, shall upon examination, be found incompetent to pursue the studies of the year succeeding, he is permitted, without additional expense of tuition, to enter the class immediately below him, and thus enjoy a second opportunity of qualifying himself to proceed in the course.

An accurate account of the delinquencies of every student, and also of the degree of his attainment in conduct, scholarship, and attendance, is kept; a copy of which account, in connection with the regular term bill, is transmitted to every parent or guardian who may desire it.

The students generally occupy rooms in the College edifices, and board in Commons. Any student, however, at the request of his parents, is permitted either to board, or to board and lodge at any suitable private house in the city. It is desired that students residing in the city should lodge at home, that they may, as much as possible, be under the guardianship of their parents.

II. ANNUAL EXPENSES. The board in Commons is charged at its net expense, and varies with the price of provisions. The price varies from \$1 75 to \$1 90 per week.

College bills, including tuition, room rent, use of library, and incidental expenses, about \$21 00 per term, or \$63 00 per annum, \$63 00 \$63 00

Board for 39 weeks, at from \$1 75 to \$1 90, . 68 25 74 10

\$131 25 \$137 10

III. PAYMENTS. There are three terms of study in each year, and the expense of each is paid in advance. Students, unless from another College, entering the Freshman Class, pay five dollars as a fee for matriculation; Sophomore Class, eight dollars; Junior Class, twelve dollars; Senior Class, fifteen dollars. No retrospective tuition is, however, demanded, and a candidate may enter, if qualified, at any period of the course previous to the last term of the Senior year.

IV. COMMENCEMENT and VACATIONS. Commencement is held on the first Wednesday in September. On the following Friday, the first term commences, and continues till December 14th—fourteen weeks—when it is succeeded by a vacation of three weeks. The second term commences January 5th, 1849, and continues till April 5th—thirteen weeks—when it is succeeded by a vacation of four weeks. The third term commences May 4th, and continues till July 26th—twelve weeks—when it is succeeded by a vacation till Commencement.

ACADEMIES, BOARDING SCHOOLS, &c.

Under this head we intended to have given an account of the several institutions for secondary education which are at this time in successful operation, in different parts of the State,—such as Friends' Boarding School in Providence; Mr. Kingsbury's Young Ladies School in do.; the Seminary at East Greenwich, under the charge of Rev. Robert Allyn as Principal; the Smithville Seminary at North Scituate, under the care of Rev. H. Quimby; the Female Seminary under the charge of Mr. Gammell, at Warren; as well as the Boarding School of Mr. Bushee at the Bank Village, Smithfield, and Mr. Belden's at Fruit Hill, in North Providence.

These schools are very well sustained in point of numbers, and are contributing largely to the general intelligence of the State. Could the course of instruction in these schools be regulated in direct reference to the district schools, so as to exclude all young pupils, and thus carry forward older scholars to higher attainments than can be reached in the district schools, they would be a still greater blessing to the State.

We can now find room for only a brief account of the Friends' Boarding School.

FRIENDS' BOARDING SCHOOL.

The following sketch of the *Friends' Boarding School in Providence*, is copied, with a few alterations, from Staples' Annals of Providence.

The institution in Providence, under the care of Friends, is called "The New England Yearly Meeting Boarding School." Its object is to impart to the children of members of the society of Friends, a guarded education, embracing not only the more common branches of an English education, but extending also to the higher departments of the mathematics and classical studies.

The school was originally established and opened for the reception of scholars, at Portsmouth, Rhode Island, in the year 1784. It was continued there four years, when, from want of sufficient encouragement, the school was suspended.

In 1814, Moses Brown offered to the acceptance of the society, the farm on which the school is now located, containing about forty-three acres of land. The erection of a suitable building was soon commenced. It consisted of a centre building, fifty-four feet square, three stories high, with two wings, each forty-two by forty-four feet, two stories high, and a basement story under the whole. Since then, the wings have been enlarged, so that they are now eighty-four by forty-two feet. Another building, forty by fifty feet, has since been built, two stories high above the basement. The wings of the first named building contain the school rooms and dormitories of the students. The centre building is occupied by the family of the superintendent, and contains, also, the meeting room, library of 1500

volumes, &c. The building last erected, contains a spacious lecture-room, laboratory, and other public rooms. The philosophical apparatus is well selected and ample, and cost \$2444. The mineralogical collection cost \$1000, and probably surpasses that belonging to any similar institution in the state.

The location of the school is on the rising ground in the east part of the city. For salubrity and beauty, it could not be exceeded. The land is one hundred and eighty-two feet above tide water, and it is said that in a clear day, every town in the state, except New Shoreham, may be seen from the observatory on the centre building. The school was opened for the reception of scholars, on the first of January, 1819, and has always received a liberal patronage.

Among the prominent benefactors of the school, may be mentioned Moses Brown, his son Obadiah Brown, and William Almy. Obadiah Brown bequeathed the institution \$100,000, the income of which is appropriated to its current expenses.

The number of scholars averages about 150 of both sexes. The price of board and tuition is \$60 per annum. At present, none are admitted but members or children of members of the Society of Friends. A committee appointed annually by the New England Yearly Meeting of Friends, has the general direction of the school. The immediate care of it, is in two Friends, man and wife, who are called superintendents, and who exercise a general parental care over the scholars. Four male and three female teachers, are usually employed.

POPULAR LECTURES.

We must omit the Synopsis which we intended to give of the several courses of popular Lectures which have been delivered in different parts of the State during the last three years.

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